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Steel Mules

by C. HORACE HAMILTON

LET me say at the very beginning that the social effects of mechanization in agriculture should not be considered as entirely isolated from other technological and economic trends. Mechanization of agriculture is rather a part, a very important part, of the current and ever-changing order of things. Its significance cannot be appreciated without an understanding of the entire social and economic order; nor can much be done about it without doing something about the rest of the world at the same time. As one writer puts it, we are in a position where it seems we cannot continue mechanization without great social cost, nor can we stop it without great social cost.

Our only hope lies in the development of social institutions that will control the machine and that will give us, at the same time, a set of human values just as satisfying as those enjoyed under a more simple agrarian organization. This is going to be a difficult task, but it *can* be accomplished. Whether it *will* be done is the challenge that confronts the younger generation of agricultural leadership.

Suppose we look now at the factual bases for these assertions.

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The high point in the manufacture and sale of farm tractors and other farm equipment in the United States was reached in 1937 when the value of such equipment sold by manufacturers for use in the United States amounted to $507,146,913. This figure is to be compared with $409,090,155 in 1936; $302,259,557 in 1935; only $90,000,000 in 1932; and in 1929, the record year before 1937, $458,000,000. Farm tractors alone accounted for 42 percent of the farm equipment sales of 1936 and 1937. In 1925, the sales of farm tractors accounted for only 27.2 percent of all such sales. During the 3-year period 1935–37, farm machinery manufacturers sold for use in the United States 565,792 tractors. In 1937 alone, more tractors were sold for domestic use than were enumerated on farms in 1920. There were 1,527,989 tractors on the farms of the Nation, as of April 1, 1938—less than three times as many as were sold in the 3-year period preceding 1938.

The Conquering Way of the Rubber-Tired Tractor

The increase in the use of the all-purpose, rubber-tired tractor has characterized and dominated recent agricultural mechanization in the United States. For instance, of the 565,792 tractors sold for domestic use in 1935–37, 72.7 percent were of the all-purpose type, and nearly 50 percent of these were equipped with rubber tires. Mechanization in the production of wheat, corn, and cotton has been, of course most spectacular; but such machines as potato- and beet-diggers should not be overlooked. Truck crops in general, however, present many obstacles to mechanization.

Although wheat production has been highly mechanized for some time, there has been a surprisingly large amount of mechanization in the wheat states during the past few years—most surprising when the effects of the drought and depression are given due consideration. This is illustrated by the fact that the number of tractors in the West North Central States increased from 318,160 in 1930 to 504,157 in 1938. Even in North Dakota and South Dakota, the number of farm tractors increased approximately 30 percent during the last 8 years. In Nebraska, the increase amounted to 61 percent; and in Kansas, to 39 percent.

If we take the ratio of tractors in 1938 to the number of farms in 1935, as a measure of mechanization, Illinois ranks in first place, with a ratio of 59.7 percent. Illinois also ranks first, not only in the total number of tractors in 1938—138,192—but also in the largest number of tractors added since 1930. Other States showing a high tractor ratio, in order, are: North Dakota, Kansas, Iowa, South Dakota, Nebraska, Montana, California, New Jersey, and Indiana. The significant thing about these 10 highly mechanized States is that they almost span the entire Nation from New Jersey to California. In these States are found approximately 45 percent of all the tractors in the United States, a percentage which has declined only slightly since 1925. In 1920, 52.5 percent of all the Nation's tractors were in these 10 States.

The Old and New South Step on the Accelerator

Although the greatest degree of mechanization is found in the North Central States, we must look elsewhere to discover the higher and more spectacular rates of mechanization. The most widespread high rates of mechanization are found in the South and Southwest. Mississippi leads the old South both in number of tractors added since 1930, and in rate of increase; the number of tractors increasing from 5,542 in 1930 to 14,703 in 1938, an increase of 165 percent. Yet, the tractor-farm ratio for Mississippi was only 4.7 per hundred. In the Southwest, Texas leads, with 61,618 tractors added—an increase over 1930 of 165 percent. The tractor-farm ratio for Texas was found to be 19.8 per hundred, considerably higher than any other Southern State, except Oklahoma, which showed a ratio of 19.5. It is interesting to note that there were estimated to be more tractors in Texas than in 8 old South cotton States—reaching from North Carolina to Louisiana.

The most rapid mechanization of cotton farming has occurred in the western cotton areas of Texas and Oklahoma. Several large areas in Texas are almost completely mechanized; e. g., the high and low plains, and the Corpus Christi area. C. A. Bonnen and A. C. Magee have found that of 141 representative farms in the high plains in 1937, 79 percent were depending on tractor power and multi-row equipment, as compared with only 26 percent in 1931. They also noted a very rapid increase in the use of 4-row equipment. In many communities virtually 100 percent of the farms depend upon tractor power.

The farms in the "Blacklands" of Texas also are being mechanized at a rapid rate. Reconnaissance surveys indicate that at least 30 percent of the "Blackland" farms use tractors and that possibly 50 percent of the cropland is cultivated with tractors.

Life and Labor in the New South

The large plantations of the river bottoms have been slow to mechanize. Nevertheless, a survey of 196 plantations revealed that the number of tractors on them had doubled during the past 4 years. The average plantation had 1.5 tractors and 382 acres of cotton in 1938. Most of the tractors on these plantations were used only for breaking, disking, road work, and ditching. Many of the plantation operators interviewed said that they expected to shift to tractors extensively in the near future.

Long before the tractor became an important source of farm power, the development of labor-saving machines, together with other changes in technology, had greatly reduced the amount of labor needed per unit of agricultural product, or per unit of land cultivated. For instance, it has been estimated that, in 1830, 288 hours of man-labor were required to produce 100 bushels of wheat on 5 acres of land. By 1880, with the use of machines available at that time, 100 bushels of wheat could be produced

with only 129 hours of man-labor; and by 1900, only 86 man-hours were required. Finally, by 1930 only 49 man-hours were needed to produce 100 bushels of wheat on 5 acres.

In the production of corn, the number of man-hours needed to produce 100 bushels dropped from about 180 in 1880 to 104 in 1930. Since 1930 the perfection and the increased use of corn-picking and corn-husking machinery probably has reduced the number of hours needed still further. The average amount of labor now actually used in the production of 100 bushels of corn in the United States as a whole, has been recently estimated to be 90 man-hours, as compared with only 49 hours in the Corn Belt.

In the production of cotton, with the exception of harvesting, a similar condition prevails. S. H. McCrory and others, in a National Resources Committee report, estimate that, on the average, only 235 man-hours were required in 1930 to produce a bale of cotton, as compared to 285 in 1900, and 304 in 1880. W. C. Holley and L. E. Arnold, in a WPA national research report, estimate that the number of man-hours required to produce one bale of cotton decreased from 271 in the period 1907–11 to 218 in the period 1933–36. The same report shows, however, that only 178 man-hours were required to produce one bale in the entire western cotton area—central Texas to California, exclusive of the "Blackland"—in the period 1933–36. In some of the highly mechanized areas of the West, the number of man-hours required per acre may be as low as 20 or 25.

Other reports of the WPA national research project indicate that there have also been substantial reductions in the number of man-hours used in producing sugar beets and potatoes. In other commercial truck crops, the trend in labor demand is generally upward. Mechanization in the production of many vegetable crops is very difficult; and, because of rapid urbanization, the acreage of such crops has expanded considerably in the last few years. The same might be said about many fruit crops.

Four Decades and the Elimination of Man-Power

The net result of recent trends in farm mechanization (along with other technological changes) has been summarized in the most recent report of the WPA national research project. Briefly stated, this report shows that "from 1909 to 1929 the output per person working in agriculture increased approximately 37 percent. This increased productivity made it possible for 7.5 percent fewer persons to produce an agricultural output which was 27 percent greater in 1929 than in 1909." Other studies indicate a similar situation.

The displacement of thousands of farm croppers, tenants, and farm laborers is the most serious social problem resulting from this trend. Bonnen and Magee have shown that the use of 2-row tractor-powered farm equipment on all farm land in the high plains of Texas would reduce the number of farms to 58 percent of the 1935 census count; and

that the use of 4-row tractor equipment would reduce the number of farms to 33 percent of the 1935 figure. E. L. Langsford and Ben H. Thibodeaux have shown how the mechanization of plantations in the Mississippi Delta area would reduce the plantation labor force per plantation (having 750 acres of crops) from 40 families under the horse-drawn 1-row equipment system to 24 families under a 4-row tractor system.

"Where do these displaced farm families go?" is a question frequently asked. Many of them move to poor farms, unsuited to cotton production with farm tractors. Larger numbers migrate to towns and cities and become common laborers, alternating between agriculture and the town. Many displaced tenants and croppers remain in the open country as partially employed farm or common laborers. At the time of this writing, the Works Progress Administration reports a certified caseload of 80,000 Texas farm families. A late report is that some of these people are to be shifted to the care of the Farm Security Administration, which already was assisting nearly 30,000 Texas farm families. Welfare and employment service offices in the State, for the past 2 years, have been reporting unusually heavy requests for aid from these displaced farm families. The 1937 Census of Unemployment showed approximately 130,000 unemployed and partially unemployed agricultural workers in the State. This is almost identical with the number of employed agricultural wage workers as reported in the 1935 Agricultural Census.

The Tenants' Race for Places to Rent

The surplus of farm tenants available has created considerable competition among tenants for places to rent and, as a result, rental rates are rising. In areas that once followed the straight third-and-fourth share rent systems, cash rents and privilege rents of various types are being used. Pasture land, which tenants formerly received free of rent, now rents frequently for $1 per acre. In some areas tenants are being charged cash rent for their dwellings. In many areas from $3 to $6 per acre is being charged for land planted in feed crops. On many of these farms the cash rent on the feed land amounts to more than the income from cotton.

The mechanization of cotton farms in Texas and in some other States has greatly enlarged and intensified the transient labor problem. New social relations, institutions, and problems are arising out of this situation. Already there has developed a widespread private and unregulated system of transporting transient labor—a system which has in it great possibilities of labor exploitation. The labor contractor furnishes a large open truck, recruits a group of laborers, and transports them, presumably free of charge, across the State as the cotton-picking and the truck- and fruit-harvesting seasons progress. The contractor, usually a Mexican with a truck, is a contact man and business agent for the laborers. He takes the responsibility for contacting farmers, weighing and hauling cotton (or truck crops), and of collecting the laborers' earnings from the farmer.

For these services and for transporting the laborers, the contractor receives from the laborer from 5 to 10 cents for each hundred pounds of cotton picked, and from the farmer, about $1.50 per bale.

And the Permanent Effects of Mechanization

Thus far in this paper only some of the immediate effects of recent trends of mechanization in agriculture have been presented. Let me now call your attention to some of the more permanent social effects of mechanization. Mechanization in agriculture has been going on for a hundred years or more. It is likely to continue for many decades. Even though technological unemployment brought about by the introduction of one machine may disappear in time, we still would be faced with problems of a continuously changing technology, and hence with continuous problems of human maladjustment.

The invention of machines, and, more important, their exploitation by monopolistic corporations, may be considered as one very effective means by which a nonagricultural economic group cuts out for itself a juicy slice of agricultural income. In this sense, farm-machinery manufacturers and the large oil companies are engaged in the process of agricultural production, without having to take nearly so many of the risks as does the farmer.

Temporarily, mechanization increases the individual farmer's income; but ultimately, if mechanization actually lowers cash costs, he is forced to cut his prices, and at the same time to pay higher costs for land and fixed costs for both land, machinery, and motor fuel. The only possible way for the farmer to maintain the favorable position that he has gained by mechanization would be to imitate the industrialists and organize a monopoly, with or without the help of the Government. Temporarily, the farmer might be successful by adopting such a program; but, since this is a democracy and since the farmer is outnumbered more than 4 to 1, what chance would he have of maintaining such a position?

50 Percent of the Farms=90 Percent of the Products

Still another permanent social effect of farm mechanization and other technological changes is the fact that a larger and larger percentage of agricultural products going into the market is being produced by a smaller and smaller percentage of the farm population. In 1930, the census reports show that about 90 percent of farm products going into the market came from 50 percent of the farms of the Nation. Since today there are more people on farms than in 1930, and since the mechanization of farms has displaced thousands of people from commercial farms, the probability is that much less than 50 percent of our farms are producing 90 percent of the farm products going into the market.

Another angle to this question is the fact that the mechanized farmer and the machinery manufacturer have shifted many of their costs onto

the shoulders of the State. There is little need here to enumerate the many services that the State now performs for rural and urban residents. True enough, industry and mechanized agriculture must ultimately bear some of these costs through taxation, or through depreciation in Government bonds; but the economic and political system by which such an indirect payment of costs is made necessary is neither desirable nor efficient.

The development of new governmental functions and programs—such as social security, farm security, agricultural adjustment, the works program, and the housing program—is the fruit of poorly controlled mechanization in both industry and agriculture. Under our old rural culture, we had developed the *family-farm institution* in such a way that our social needs—education, care of the aged, the dependent, and the unemployed—were met without any elaborate political organization or expense. The fact that we are now spending billions of dollars to do things that once were done by the farm family for itself demonstrates in a dramatic manner just how valuable the *family-farm institution* was to society. The farmer has increased his productivity in doing a few things, but he has relinquished to others the doing of a hundred things that he once did himself with little or no cash costs.

The Inoculation of Farmers With Social Theory

At the same time that the farmer has bought these machines he has been furnished with a set of ideas about the social advantages of mechanization. He has, for instance, been thoroughly inculcated with the theory of social and technological progress; the theory that social and historical evolution is always onward and upward; the theory that older and simpler forms of agrarian and social organization passed away because they were bad. The dominant theory has been that he need not exert any effort to develop new social organizations and institutions. The argument has been that those he has are adequate and that if they were not adequate, new ones in some mysterious manner would come into existence as a result of more, bigger, and better machines.

We might clarify the issue here by saying that, just as we cannot attribute social evils to the inanimate machine, we also cannot attribute to the machine some mysterious capacity to mold and develop our social life. The forces that really determine the patterns of our social institutions are more likely to be human than mechanical in character. Whether or not machines are to do the wonderful things claimed for them depends upon how individuals and groups of individuals make them, how they sell them, how they manage them, and, finally, how they distribute their products. In the final analysis, we must evaluate the social effects of mechanization, not by what these social effects might be under certain ideal conditions yet to be realized, but rather upon what the social effects are here and now, or have been in recent years.

Trade War In The States

by FREDERICK V. WAUGH

Are we returning to the economic provincialism of the 1780's? Since the Articles of Confederation gave way to the Constitution, Americans have gloried in their unrestricted continent-wide markets. Dr. Waugh in this article shows the extent of the present-day threat to such markets, and indicates grounds for the view that it will be averted.

WE CANNOT have a good land policy without a good marketing policy.

A good land policy requires that each farm be put to the use for which it is best suited. This is possible only if the products of each farm are accepted readily and without discrimination in markets throughout the country. In order to make this clear, let us picture the opposite situation and imagine what would happen if each State should place an embargo on foods grown in other States. This would dislocate our whole agriculture. It would reduce greatly production in the major surplus regions such as the Corn Belt and the Wheat Belt, and would expand production in the deficit areas near the centers of population. Production costs would be raised greatly. Eventually such embargoes probably would force changes in the location of manufacturing industries and in population.

All of us would agree that such a situation would be bad, and that it would be impossible under these conditions to make good use of our land resources. Both the farmer and the consumer would suffer.

Now, of course, this is an imaginary picture. It is also somewhat imaginary to think of the United States as one big, free-trade area where each market accepts without discrimination the products grown in any part of the country. It is true that our Constitution was so designed as to prevent State governments from laying direct duties on imports. It is true, also, that our interstate trade has always been freer than the trade between any 48 countries which might be selected for the purpose of comparison. This has been one of the principal reasons for our prosperity. Yet, we have in this country a large and rapidly growing list of laws, ordinances, and regulations that definitely hinder the free movement and free sale of agricultural products and that prevent us from making the best possible use of our land.

The Danger to Farm and City Living Standards

Recently there has been a great deal of interest in this situation. State officials, Federal officials, farm organizations, and dealers' organizations

are anxious to get rid of unnecessary trade barriers and to encourage free trade within our country. They realize that, unless something of this kind is done, there is a danger that our trade in farm products will be so hampered that large sections of agriculture will be unprofitable and standards of living will drop, both on the farm and in the city. Among the State organizations that are working on this subject are the National Association of Directors, Commissioners and Secretaries of Agriculture, and the Council of State Governments.

The Bureau of Agricultural Economics has cooperated with the State commissioners in making an extensive survey of barriers to trade in farm products. A report has been published recently, giving the results of this survey. I will not attempt to summarize the whole report here, but will comment briefly on some of the problems which appear most acute.

First, it might be well to consider legislation on three kinds of commodities—dairy products, margarine, and alcoholic beverages. The marketing of these particular commodities is regulated more than most others. The marketing of dairy products is regulated by numerous State and city health and sanitary measures, together with an elaborate inspection set-up.

The original purpose of health and sanitary measures is unquestionably sound, and it is obvious that the consumer of milk and other dairy products needs protection through proper inspection. It is also quite apparent, however, that the indirect result of many of the regulations is to set arbitrary limits to milk sheds and to give a degree of economic protection to dairymen living in a particular area by excluding from the market fluid milk, cream, and other dairy products which may be of perfectly good quality.

The sale of margarine has been restricted by numerous taxes, license fees, and other measures that vary greatly from State to State. Three States require a tax of 15 cents a pound. The result of such high taxes, together with license fees and other deterrents, has been virtually to prevent the sale of margarine altogether. This has caused a great deal of resentment in the cotton-growing States, since margarine is one of the important outlets for cottonseed oil, and has led to the passage of retaliatory legislation in some of the Southern States.

The Twenty-first Amendment and the States

Some of the most conspicuous legislation of an obviously protective character is that on alcoholic beverages. The Twenty-first Amendment to the Constitution appears to have given the States authority to deal with this problem as they see fit, without regard to problems of interstate competition. Many of the States have proceeded to regulate the industry in ways that give competitive advantages not only to local manufacturers and wholesalers of alcoholic beverages, but also to local groups of farmers producing the crops used in the manufacture of wine and beer.

So much for regulations on specific commodities. There are many other kinds of legislation that affect the marketing of all agricultural products to some degree. One important kind of legislation is that dealing with motor-truck transportation. The license requirements and taxes on motor trucks vary greatly from State to State, and there is also very little uniformity in the requirements of different States with regard to such physical factors as the length, width, and weight of trucks and the kind of equipment they must carry. Several western States have set up ports of entry at which all motor trucks are stopped and various kinds of taxes are collected. This gives a certain dramatic emphasis to the situation, since the trucks passing State lines must go through a routine similar to that required in passing from one country to another in Europe. However, even in those areas where the port of entry system has not been inaugurated, the attempt to enforce widely varying requirements on motor trucks in many cases presents a serious obstacle to the free movement of agricultural products from one State to another.

Local Farm Groups vs. Distant Groups

The regulation of merchant truckers and itinerant merchants is another important problem. There are perfectly good reasons for regulating the methods used by merchants of this kind and for requiring them to pay a fair amount of taxes. Yet many of the laws and regulations on this subject appear to result in giving rather arbitrary competitive advantages to certain local groups of farmers at the expense of more distant groups.

Another general type of legislation which is of great interest to farmers is that dealing with grading, labeling, packing, and marking. The general trend is for the Federal Government to take a large share of the responsibility in this field, and through Federal legislation a great deal of uniformity has been accomplished in the grading, labeling, and packaging requirements for the principal cash crops. However, there appears to be a decided need for still more uniformity in this field.

Quarantines are needed from time to time to prevent the spread of insect pests and diseases. There has been some criticism from time to time of specific quarantines on the grounds of unnecessary red tape, annoyance, and delay in inspection, and in some cases the biological basis of quarantines has been questioned. The regional plant boards are doing an important job in bringing about greater uniformity in plant quarantines and in developing a program that is intended to give adequate protection to the farmer and the public with as little interference to trade as possible.

One more subject needs to be mentioned here; that is, the recent development of State-financed campaigns to advertise farm products. There appears to be a real danger that these campaigns may be used as appeals to economic provincialism and as an additional weapon in

economic competition between different producing areas. This result would be very unfortunate from the standpoint of interstate trade and from the standpoint of a land program.

The above statements indicate very briefly and inadequately some of the principal kinds of barriers that are hindering interstate trade in farm products at the present time. A full and detailed discussion of these and similar problems will be found in the report itself. The reader should note that the important types of regulations mentioned above are intended, in a large measure at least, to serve legitimate and useful purposes such as the protection of public health, prevention of the spread of pests and diseases, and the elimination of undesirable trade practices. In many cases the hindrances to internal trade are either unintentional or at least incidental. In some other cases, however, laws and regulations appear to have been worked out purposely in such a way as to give economic protection to certain groups at the expense of others.

Whether the purpose of such legislation be restrictive or not, it is apparent that there is a large and rapidly growing body of regulation that has the effect of placing unnecessary hindrances upon the free movement and sale of agricultural products. Small groups of farmers sometimes may benefit, at least temporarily, from such restrictions as prevent competitors from selling in their markets. However, there is a growing tendency for the affected States to pass retaliatory laws and regulations and these soon nullify any advantages that local groups of producers may gain. In the long run, it is perfectly clear, agriculture as a whole stands to lose from the further development of internal trade barriers.

Luckily, State and Federal officials, as well as national farmer and dealer associations, are becoming very much interested in this problem and are taking active steps toward finding remedies. It is too early to say how effective these remedies may be, but there is a willingness to work the problems out cooperatively. One promising approach to the problem is the adoption of so-called "model laws" by the various State legislatures. Model laws might well be developed by committees of technological specialists, marketing men, and economists in cooperation with farmers and dealers. If agreement could be reached on a model law dealing with any marketing subject there would be good prospects for getting it adopted by most of the State legislatures. Even where it is not possible to develop uniform legislation in all of the States, great improvement may be made in the present situation by repealing or modifying some of the more drastic and less necessary provisions of laws in several of the individual States.

The Department of Agriculture is planning to work closely with State officials to develop a specific program intended to provide necessary protection for the farmer and the general public without unnecessarily hindering free interstate trade in farm products.

The Ubiquitous City

by M. M. KELSO

I

EVERY attempt to formulate programs of land-use adjustment for the improvement of rural welfare feels at an early stage the impact of the problems of the nonfarm sections of our total society on the patterns of rural land use. These nonfarm problems are thrown into bold relief against the back-drop of "the city." As he struggles to make rural programs inclusive and effective, the student of rural land use problems finds himself bound to consider the city, to understand it, to appreciate its significance as a dominant institution of our contemporary social and economic organization, to recognize that its characteristics evolve in concert with the evolution of technological, economic, and social conditions, to speculate upon the close interdependence of the city with the country and of the country with the city, and to devise ways and means to realize the potentialities of this interdependence for the well-being of the people who constitute the country, as well as of those who make up the city.

For those interested in drafting such programs and in discovery of democratic machinery for putting them to use—layman and technician alike—few contemporary writers are more stimulating than Lewis Mumford, architect turned city planner, turned sociologist and social philosopher.

Even when it is impossible to agree with him, one is always grateful to Mr. Mumford for the boldness of his thought. In his "The Culture of Cities,"[1] Mr. Mumford deals with several matters of profound concern, particularly just now, to students of the use of land. He is deeply concerned, for instance, with the necessity for "intelligent participation and understanding (by the community), at every stage in the process" of planning. Indeed, Mr. Mumford's discussion of the nature of the planning process conforms closely to ideas evolved by Government leaders in the development of county planning work among farmers. Treatment of the process within the framework of Mr. Mumford's general thesis throws interesting light upon problems involved in the current county planning efforts.

A major part of this general framework is Mr. Mumford's insistence that a socially sound city organization nullifies the traditional debate as to the relative value of city and rural life. But his conception of a socially sound city organization lies within a larger conception of "region-

[1] *Harcourt, Brace and Co., New York. The quotations which follow are reprinted by special permission of the publishers.*

alism," wherein the city becomes a means for increasing the well-being of all people, whether rural or urban, whose dependence lies within the "region."

The Rural Stake in Maintaining the City

"In the very act of lending to economic aims the full cultural equipment of the city, the city also gives the stimulus of wider economic and regional experiences to its specific cultural processes . . . the complete disappearance of the city is unthinkable, so long as civilization remains intact—although the fundamental forms of the city are all subject to radical alteration. Disurbanization and general dispersal would ruin the countryside no less than the urban centers."

A discussion of the history of city development from the medieval city through the Baroque city, through the industrial city to the megalopolis and the present age of transition to the next stage in city organization, is helpful in understanding the possible character and role of the "new city." To Mr. Mumford the medieval city was not the dark, gloomy, and generally unhealthful place it has been so frequently pictured. Quite the contrary. It grew out of the needs of the people of the times for mutual protection and was adapted to the necessities of human living to the extent that technological development of the age permitted. It was small enough to develop "community;" it was free from congestion; it was quiet; it was clean and free from the pollution of congested living; its inhabitants were intimately identified with its life and government.

With the growing importance of the national state and of commerce, many of the medieval cities increased in size and complexity, due to the increasing centralization of government and to their location at favorable points for trade. Consolidation of power in these centers came to prevent the multiplication of cities—a phenomenon which had forestalled the emergence of congestion during the preceding period of free cities. With the increased size of the city and with the added trappings of the "court" and the commercial institutions, began the development of cities as we know them, crowded, lacking in room really to live, increased pollution of air and water.

"The new pattern of existence sprang out of a new economy, that of mercantilist capitalism, a new political framework, that of a centralized despotism or oligarchy, usually focused in a national state, and a new ideological form, that of mechanism, whose lines were first laid down in the monastery and the army. . . . The age of free cities, with their widely diffused culture and their relatively democratic modes of association, gave way to the age of absolute cities; a few centers that grew inordinately, leaving other towns either to accept stagnation or to stultify themselves in hopeless gestures of imitation."

The Modern City in the Role of Frankenstein

But it was with the industrial revolution, the creation of an industrial, propertied class, the separation of men from their trades, and their transformation into laborers that the "insensate industrial town" emerged. Laissez-faire and capitalist philosophy dictated that no plan for city growth was the best plan. Self-interest, if unhindered, would, in this view, lead to city development and growth in the best interest of those who must live in it. That the theory did not prove out in practice, Mr. Mumford is most emphatic in asserting. The result has been city development in the interest of maximum profits for businessmen, rather than of maximum opportunities for a satisfying life on the part of those who live in the city. And the two things are by no means identical or inseparably connected. Even the business class thought mostly of its needs for profit, and not of its needs for a place to live.

"Laissez-faire, even more than absolutism, destroyed the notion of a cooperative policy and a common plan: Did not the utilitarian expect the *effects* of plan to appear from the unrestricted operation of random private interests? By giving rein to chaos, reason and order were to emerge: Indeed, rational planning, by preventing automatic adjustments, could only interfere with the higher workings of a divine economic providence. The test of social success was not the consequences to society in good homes and healthy lives and a friendly environment: The sole test was the pecuniary reward that flowed to the enterpriser."

Large-Scale Concentration of Power Means Impotence

The industrial city has become more and more ensnared in the vicious circle of its own growth, until it is ripe for a transition that even now is commencing. The techniques of power transmission and transportation heretofore prevailing, the "centralization of the organs of administration in the great capitals," and the growing dependence of every type of enterprise upon the processes of administration transformed the industrial town into the congested metropolis. "There is a special name for power when it is concentrated on such a scale: It is called impotence."

As means of urban transportation improved, more and more people could live in the city, even though it meant living many miles from work. But the logic of this growth defeated itself. Increasing congestion in the city and pyramiding land values and rents now offset the advantages of efficiency the business man has been gaining, so that, with improved facilities for power transmission, contact, and transportation, the pull is now away from the "megalopolis" to smaller cities and towns scattered throughout the "region." The "region" now embraces the economic and social advantages formerly restricted to the

"city" and can recapture for its inhabitants the values lost during the eras of increasing metropolitan concentration and congestion.

"Rural regions will attract industry, foster a cooperative way of life, promote biotechnic urbanism; while industry must, for the sake of life efficiency, seek a wider rural basis. Each village nucleus will thus be the embryo of a modern city, not the discouraged, depauperate fragment of an indifferent metropolis. . .

"The effect of all these instruments of modern invention is to *enlarge the sphere of activity at the same time that they diminish the need for physical movement and close settlement.* Plants or offices that are 200 miles apart today may be in closer effective communication than when they were 2 miles apart a hundred years ago.

The Geographic Region Replacing the Metropolis

"The important thing that has happened is that the geographic region has become potentially the unit that the metropolis was under the past economic regime: It needs to be linked up, interlaced, and settled with a view to the new opportunities and the new conditions of life."

No better summary of the social disruption attendant on the changes of the past five centuries can be given than Mr. Mumford's own: "Looking back over the course of western civilization since the fifteenth century, it is fairly plain that mechanical integration and social disruption have gone on side by side. . . . The mechanized physical shell took precedence in every growing town over the civic nucleus: Men became dissociated as citizens in the very process of coming together in imposing economic organizations. Even industry, which supposedly was served by this planless building and random physical organization, lost seriously in efficiency: It failed to produce a new urban form that served directly its complicated processes. As for the growing urban populations, they lacked the most elementary facilities for urban living, even sunlight and fresh air, to say nothing of the means to a more vivid social life. The new cities grew up without the benefit of coherent social knowledge or orderly social effort: They lacked the useful urban folkways of the Middle Ages or the confident esthetic command of the Baroque period: Indeed, a seventeenth century Dutch peasant, in his little village, knew more about the art of living in communities than a nineteenth century municipal councilor in London or Berlin. Statesmen who did not hesitate to weld together a diversity of regional interests into national states, or who wove together an empire that girdled the planet, failed to produce even a rough draft of a decent neighborhood."

In other words, the development of such social institutions as county planning committees is not only a modern necessity; it is also the attempt to embody for our day an ancient, traditional group function of humanity.

II

But Mr. Mumford is not content with tracing a growth and forecasting the possible direction of future change; he has a program to sponsor. "To cast off the dead form of the metropolitan order and to concentrate its surviving energies upon the social utilization of its real goods, within the greater regional framework, is perhaps the most pressing task of our civilization: The issues of war and peace, socialization or disorganization, culture or barbarism, rest in good part on our success in handling this problem." He believes the direction of change should be plotted and helped on its course by public action. "The next step lies in contriving the political organization appropriate to this new task, and in working out, in concrete detail, the effective economic means." With the technologies now at hand, the city can and should be planned as an intrinsic part of a "region," in the interest of efficient production and of a satisfying human life. Cities should be planned with both business and human needs in mind. And technological advances being what they are, human needs and the needs of industry and business can again be served simultaneously; no longer are they in conflict as during recent centuries. "Now that advanced technical processes lend themselves to the decentralization of production, the means of living can be once more produced in an environment fit for living; an environment that lends itself not only to production, but to a higher standard of consumption and more vivid creative activities."

A Reservoir of Resources and Culture

Aside from his plans for the internal structure of the city proper, it is through "regionalism" that the balance of human and business needs and of rural and urban well-being is to be achieved; not by anything so simple as "part-time farming" or "suburban dwelling." He visualizes every city as being the center of a surrounding region which is dependent in a major way upon the city and which, in turn, is the city's reservoir of resources and culture. These regions should be mapped out and a comprehensive plan for development formulated for the whole economic and social complex of each; not for segments of each, or for single aspects of the intricate problem of each, but for the entire complex of the whole area embraced by each, with each part and problem in its proper relation to the whole.

"The grasp of the region as a dynamic social reality is a first step toward a constructive policy of planning, housing, and urban renewal." And, it may be added, of rural welfare, sound land use, and conservation of natural resources. Each region is marked by three qualities: First, "a specific geographic character: Certain common properties of soil, climate, vegetation, agriculture, and technical exploitation;" second,

"by the existence of a balance, a state of dynamic equilibrium;" and third, by a lack (except rarely) of "any definite physical boundaries. . . . To define human areas, one must seek not the periphery alone but the center."

"Region," here, is used much in the sense of "area" as the latter word is used in the land use planning work of the Bureau of Agricultural Economics in the concept of "area land use planning." "Region" as used by Mr. Mumford should not be confused with the "region" now so much in vogue to designate administrative areas of Government, such as Farm Security Administration or Soil Conservation Service "regions," or broad natural areas for general planning such as the regional planning commissions of the National Resources Board. A "region" in Mr. Mumford's meaning is "an area large enough to embrace a sufficient range of interests, and small enough to keep these interests in focus and to make them a subject of direct collective concern. It is a unit area formed by common aboriginal conditions of geologic structure, soil, surface relief, drainage, climate, vegetation and animal life: Reformed and partly redefined through the settlement of men, the domestication and acclimatization of new species, the nucleation of communities in villages and cities, the reworking of the landscape, and the control over land, power, climate, and movement provided by the state of technique.

"The human region, in brief, is a complex of geographic, economic, and cultural elements. Not found as a finished product in nature, not solely the creation of human will and fantasy, the region, like its corresponding artifact, the city, is a collective work of art."

III

"Regional" or "area" planning has a strong land use planning flavor. "Regional planning is the conscious direction and collective integration of all those activities which rest upon the use of the earth as a site, as resource, as structure, as theater" and is "the effort to apply scientific knowledge and stable standards of judgment, justified by rational human values, to the exploitation of the earth." It involves four stages: First, survey—"disclosing, by first hand visual exploration and by systematic fact gathering, all the relevant data on the regional complex"; second, evaluation—"the critical outline of needs and activities in terms of social ideals and purposes"; third, imaginative reconstruction and projection—"on the basis of known facts, observed trends, estimated needs, critically formulated purposes, (the development of) a new picture of regional life"; fourth, education and action—"the intelligent absorption of the plan by the community and its translation into action through the appropriate political and economic agencies.

134471—39——3

"In this stage, the plan undergoes a readaptation as it encounters the traditions, the conventions, the resistances, and sometimes the unexpected opportunities of actual life."

Even the Best Plan Requires Action

"Plan, then, is not a substitute for intelligent choice, decision, or invention on the part of those who must execute it in detail: It rather assumes the existence of these qualities and organizes the milieu in which they can most effectively work. What is true in individual constructions is even more true in the complicated coordinations of society. Regional plans are instruments of communal education; and without that education, they can look forward only to partial achievement. Failing intelligent participation and understanding, at every stage in the process, from the smallest unit up, regional plans must remain inert. Hence the need for positive organs of assimilation."

Mr. Mumford does not say that the public should "do" the planning, but that there should be "intelligent participation and understanding" and "intelligent absorption of the plan by the community." "Intelligent participation" in the planning process may necessitate readaptation of the plan "as it encounters the traditions, the conventions, the resistances," etc., of the "common sense of the plain man." The implication is clear that technicians will assist the citizen's consideration of the problems of his region, his interpretations of them, his judgments and evaluations of them, and in the formulation of a program of action—a plan—that meets, as nearly as possible, the needs of the situation and the common sense of both the technician and the citizen.

Mr. Mumford is much put out by the institution of private property in land. In his opinion, many if not most of the desirable shifts in land use that should now be made, could and would be made, and made rapidly, if it were not for the brake this institution puts on change. He has the courage to follow his logic to its conclusions—if needed adjustments can't be effected through private property owners (and he believes they cannot), then out with private property in land. "If individual land ownership works against the best utilization of the land as a human resource, it is not the environment that must be sacrificed but the principle of unrestricted individual ownership." By this he does not eschew private management of property—merely private ownership of land with its attendant tendency to thwart change in the social interest.

The Immediate Needs of the Administrator

Now, he explicitly maintains that he is not outlining a program for immediate fulfilment—he is charting a long course. It may be that over the long pull the absoluteness of private property in land may be further weakened, even to the point of its disappearance. But the

administrator, faced with immediate practical problems, has to have some guidance for what to do here and now. Mr. Mumford does not help him. He makes passing reference to control of land use through police power measures and through inducements, but in his opinion the former are uncertain and slow, and the latter a "bribe" to the property owner that constitutes a needless financial burden on the rest of society.

Mr. Mumford's program is, as I have said, stimulating, and should prove enlightening to those who are already interested in his subject. It will need translating into the language and thinking of the plain man, however, before it can exert its full force for change in the present order.

His discussion leads to the interesting thought that perhaps it would be advisable for city and regional planning commissions to sponsor local committees of laymen in urban and suburban communities to pursue their problems, just as farmer committees now are being organized in rural areas. With such local groups actively interested in charting the future of their communities, ideas such as those of Mr. Mumford might be far more telling and of more immediate significance than they now are.

Land Planning From The Air

By agreement between the Pennsylvania State Planning Board and the AAA, provision has recently been made for air-photographing 48 complete counties and portions of 8 others, embracing an area of approximately 38,000 square miles in Pennsylvania.[1]

Under the terms of the agreement, one contact print of each photograph, together with index maps, will be filed with the State planning board, where they may be consulted by interested individuals or agencies.

Although air photographs do not supplant other tools of planning—maps, charts, surveys, statistical data, etc.—they perform some functions better, and when used in conjunction with these, add greatly to their usefulness. They provide, moreover, complete and direct register of such essential physical and cultural detail of existing land uses as are needed preparatory to laying plans either for better uses or for the meeting of future needs. Trends may be convincingly revealed in successive photographs of any given area. Air photography may be counted on to provide an economical substitute for the laborious, slower, and often prohibitively costly surveys taken by field measurement, and recorded by hand-drawn projection.

[1] *See "Air Photography as a Planning Tool." Pennsylvania Planning IV (1) 6. November 1938. (Pa. State Plan. Bd., 928 Third St., Harrisburg, Pa.)*

Wanted: Population Adjustment, Too

by CARL C. TAYLOR *and* CONRAD TAEUBER

NEARLY one-third of the farm population of the United States lives in areas where substantial changes in use of land have been recommended, involving chiefly a shift from more intensive to less intensive agricultural uses. To bring about these changes would mean to reduce the number of persons living on farms and carrying on agricultural activities. The recommended adjustments, therefore, presuppose continued migration out of these areas.

This migration would need to be larger than the natural population growth, in order to bring about a net reduction in the number of people. Even in the relatively stabilized areas, migration would need to be at least large enough to equal that portion of the natural growth of population that does not compensate for replacements caused by death and retirement. These migrations, moreover, must be of such a character that both the migrants and the nonmigrants have greater opportunities for a higher standard of living than before, else social maladjustments will be created by land use adjustments.

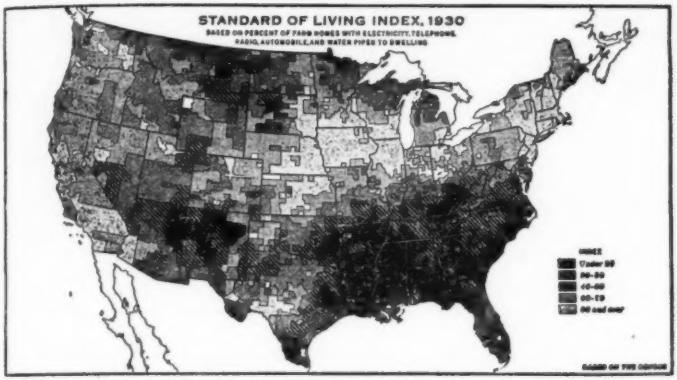
Varying Bases of Economic Opportunity

A comparison of the land use adjustment map on pages 22 and 23 with the accompanying map showing levels of farm living emphasizes the close relationship between the land use adjustment areas and the relative economic opportunity of residents in those areas. The six land-use classes used in this article are as follows:

Class I: Designated as one of relatively stabilized agriculture, it includes all of those areas in which farming can be continued on a relatively permanent basis, either with present farm organization or with some reorganization of practices and enlargement of farming units. Approximately two-thirds of the total farm population lives in these areas, which include most of the commercial farming land of the country.

Class II: Those areas in which the major portion of the land should be utilized in grass culture, and a system of livestock farming practiced. This area includes a considerable portion of the Great Plains, and is peopled by only about 2 percent of the total farm population.

Class III: This includes areas in which it is recommended that a substantial proportion of the land now in farms be withdrawn entirely from agriculture and developed for forest, grazing, recreational, and other uses. These lands are located chiefly in the southern Appalachian and Ozark Mountains, scattered parts of the South, the Lake States cut-over area, and part of the Great Plains, with smaller concentrations on the Pacific coast, New England, and elsewhere. About 17 percent of all farm people live in counties the majority of whose areas fall in this class.



Class IV: Closely related to class III, this class includes lands now in forests, which should be retained in forest uses, and range and livestock ranching areas in which land and water use adjustments are required. Counties, the major portion of which are in this class, include about 10 percent of the farm population.

Class V: This includes areas near large cities where the major adjustment needed consists of correlating rural land uses with the requirements of an orderly urban expansion. These areas include only about 5 percent of the farm population.

Class VI: This includes some scattered areas containing no serious land use adjustment problems, although unstable land values, uneconomic production, tenure relations, and similar factors are important obstacles to sound land use. Most of these areas are sparsely settled and altogether they account for less than one-half of 1 percent of the farm population.

Although gross incomes fluctuate widely in the relatively stabilized areas, the average for these areas is well above the averages for others. The proportion of counties reporting low farm incomes is much greater in areas III and IV than in area I.

Distinctions in Planes of Living

A plane-of-living index, based on the presence in the home of six home conveniences, clearly distinguishes area I from areas II, III, and IV. Area V makes a favorable showing on the level of living map, because the nearness to cities of these lands makes for a greater frequency of some of the home conveniences which go to make up the index. In area I there are nearly as many counties with the highest index as there are with the lowest index, while in area III the number of counties having the lowest index is nearly six times as great as the number with the higher index. Area II includes only a relatively small number of counties, but the index in these counties is far below that for other areas of the States in which they are located.

Another pertinent measure of the economic opportunities afforded by the areas in these several land use classes is found in the extent to which the population has required public assistance in recent years. Relief rates are available for the total population of each county, based on the percent of the population on the relief rolls during the 12 months ending in June 1935. The average for the Nation was slightly more than 15 percent. Because of the effects of the severe drought of 1934, area II has the highest relief rates; in seven-eighths of the counties the rate averaged more than 15 percent. In area III nearly three-fifths, and in area IV one-half of the counties exceeded 15 percent. In area I, only one-third of the counties exceeded the national rate.

II

Migration from farms as a solution to economic and social problems is not new in this country. It has gone on so long and to such an extent that it is ordinarily considered a normal process. It has been large enough to bring about a fairly consistent net loss in population in some areas. Between 1920 and 1930, for example, there was a net migration of about 6,000,000 persons from farms to towns and cities, which brought about a decline of 1,400,000 in the number of persons living on farms at the end of the decade. To follow the call of opportunity elsewhere has become an American tradition, but in the past, few intelligent efforts have been made to guide migration from areas of lesser to areas of greater opportunity, or to induce a greater migration from poorer than from better land areas.

If all persons moved in response only to real differences in opportunity, it might be expected that the normal migrations would bring about the necessary readjustments, and that farm people would gradually vacate areas in which a substantial proportion of the land should be retired from cultivation. The table at the top of page 25 presents data which in a broad way show the differences in the volume of migration out of the six types of land use adjustment areas and the differences in trend between 1920–30 and 1930–35.

Columns two and three of this table are not exactly comparable, for two reasons: First, because column 2 deals with the "rural population" and column 3 deals with only the "farm population;" second, because column 2 deals with "net migration" and column 3 deals with "net change." It can be assumed, however, that a population gain of less than plus five from 1930 to 1935 in any area indicates that there was migration from the area during the period, but that the volume of migration was less than the natural population increase.

Land use adjustment class	Percent of farm population, 1930	Percent net rural migration, 1920–30	Percent change in farm population, 1930–35
I	67.0	−13.0	+2.2
II	1.8	−10.5	−5.7
III	16.6	−15.4	+8.4
IV	9.5	−7.8	+9.7
V	4.7	+5.9	+16.7
VI	.3	+17.3	−1.3
Total	100.0	−11.0	+4.5

Migrants Leave Stable and Unstable Areas Alike

With these qualifications in mind, the following generalizations may be made:

1. Between 1920 and 1930, there was marked net rural migration out of four of the six types of land use areas, and the migration out of the most stabilized areas (class I) was almost as great as out of the least stabilized areas (class III).

2. Between 1930 and 1935, a period in which farm population was increasing, the greatest increase came in suburban areas, but the next greatest increases were in areas where good land use adjustments require population decreases (classes III and IV).

3. In the areas in which it is desirable to shift from cultivated crops to grass culture and livestock farming (class II), there was marked out migration between 1920 and 1930, which was continued during the next 5 years, thus indicating that the desired population adjustments were in process during the whole 15-year period.

III

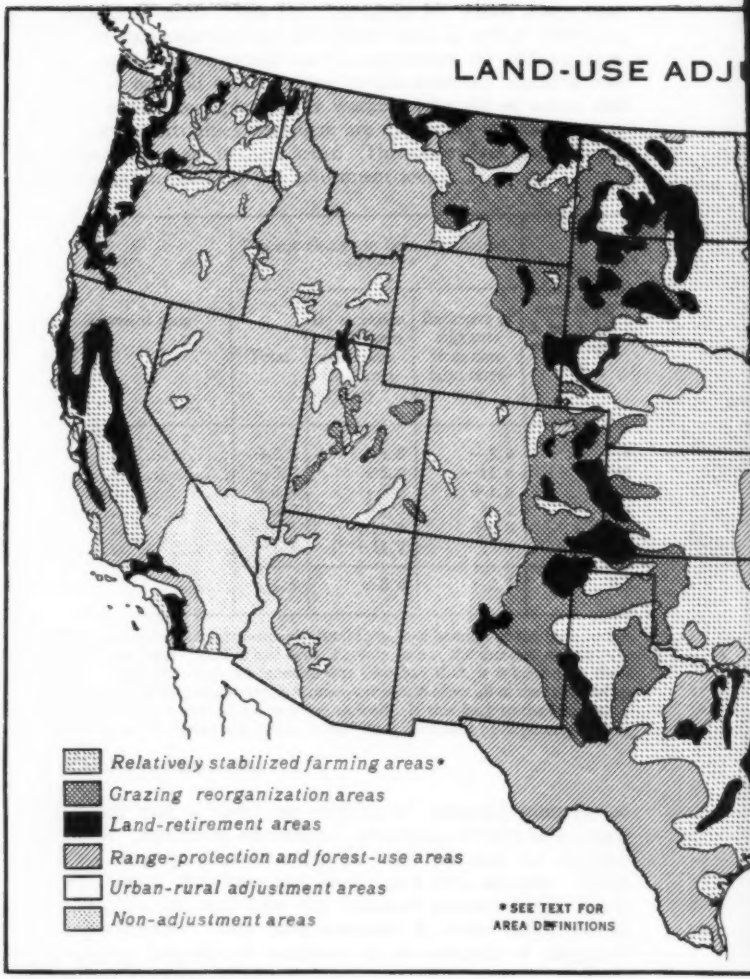
There is a constant flow of migration from farms to towns and cities and from towns and cities to farms. The average number of moves annually since 1920 has been 2 500,000. The net annual movement has been away from farms, except for the year 1932. It should not be overlooked, however, that during each year there are about 1,000,000 persons who arrive on farms from towns and cities. During the year 1932, there were 1.777,000 such farmward moves, which was 266,000 more than those away from farms. This back-to-the-land movement was considerably different for the various types of land use adjustment areas.

It is easy to misinterpret population trends because of the variety of movements involved. There were, for instance, 30,148,000 moves from farms to towns and cities from 1920 to 1937, inclusive, but during the same period there were 22,134,000 moves from towns and cities to farms. There was thus an annual "back to the land" movement. This was true during the 3-year period 1930–32, when the flow back to the land was 44,000 moves greater than the flow away from farms, and it was also true during the 3-year period 1921–23, when the moves away exceeded by 2,508,000 the moves to farms. In this constant interchange of people, some farming areas lose and some gain more than others. The largest proportional movement to the land during the 6-year period 1930–35 was in the areas near large cities (class V); the smallest was in the relatively stabilized areas (class I). Eliminating areas in class V, where the movement was largely a suburban one, the increase in farm population due to the "back to the land" movement was greatest in the "nonadjustment" areas (class VI), next greatest in "forest and range" areas (class IV), next in "land retirement" areas (class III), then in the "grazing and farm reorganization" areas (class II), and least in the "relatively stabilized" areas (class I).

Now the Poorer Lands Are Drawing Settlers

Disregarding numerous exceptions which space will not permit recording, the major trends of migration in relation to land use adjustments may be summarized as follows. Before 1930, migrations from rural areas tended to be somewhat larger from areas in which land should be retired from agriculture, though these migrations were generally not great enough to bring about needed readjustments. Since 1930, the slowing down of migration and the movement to the land have further complicated the problem, for farm population has increased more rapidly in retirement areas than in those areas where agriculture is relatively stabilized.

In the outlook for the future another factor must be considered, namely, the rate of natural increase. Under conditions such as prevailed in the years just before 1930, the white farm population would increase by about 70 percent in 30 years, if there were no migration from farms. Under like conditions, the Negro farm population would increase even more rapidly. One means of showing the relative rates of growth, if there were no migration, is through the fertility ratio—the ratio of children under 5 years old per 1,000 women aged 20–44 (shown in the table on page 27). As shown by this ratio, the highest prospective rates of increase are in the "land retirement" areas (class III), the same class in which migration was markedly retarded after 1930. In one-fourth of the counties in this class, population would more than double in about 30 years if there were no migration, and in half the counties in these areas the rate of increase would be more than 75 percent under those circum-



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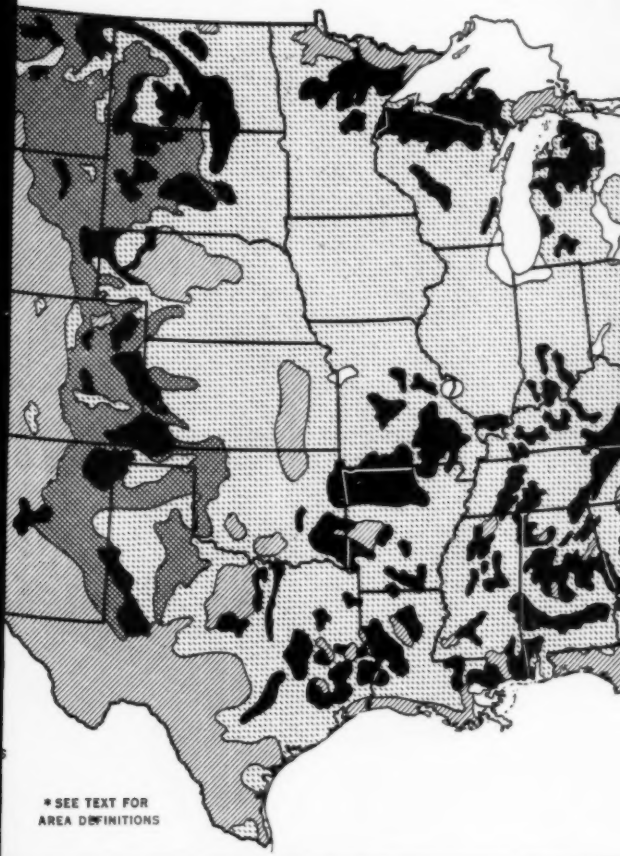
AND-USE ADJUSTMENT AREAS



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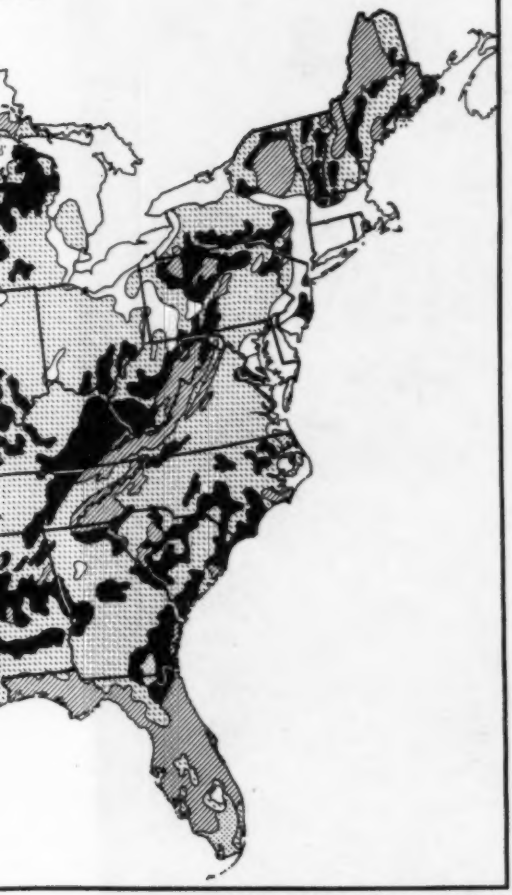

BUREAU OF AGRICULTURAL ECONOMICS

134471—39 (Face p. 24)

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stances. The relatively low ratio for "forest and range" areas (class IV) is due largely to the fact that it includes a number of Pacific Coast States' counties, where rates of reproduction are generally low. If these are omitted, the fertility ratio for these areas rises above that for the "relatively stabilized" areas (class I). The areas for which major land use revisions are recommended are also those areas in which there is a comparatively rapid rate of growth in the population of working ages. Only one-third to one-half of the young people currently reaching maturity here are needed to replace older workers who die or retire, and when alternative opportunities elsewhere are drastically curtailed, many of the young people remain in these areas. This table gives recent trends in farm population in the land use adjustment areas:

Land use adjustment class	Percent change in farm population, 1930–35 [1]			Average number children under 5, per 1,000 women aged 20–44 [2]
	Total	By accession of migrants from nonfarm territory	Exclusive of migrants from nonfarm territory	
I	+2.2	+5.6	−3.4	695
II	−5.7	+5.9	−11.6	765
III	+8.4	+6.6	+1.8	797
IV	+9.7	+9.5	+.2	694
V	+16.7	+13.9	+2.8	554
VI	−1.3	+11.7	−13.0	623
Total	+4.5	+6.6	−2.1	707

[1] There was an increase of 4.5 percent in the total farm population, but the back-to-the-land movement was so large that if it had been the only factor, the increase would have been 6.6 percent. Since the total net increase was less than that, it is clear that there must have been considerable migration from farms—enough to offset all of the back-to-the-land movement and part of the natural increase as well. If this back-to-the-land movement had not occurred, the farm population would have decreased by 2 percent during those 5 years.

[2] White Rural Farm Population 1930.

It is thus clear that a "land use adjustment" program must be accompanied by a "population adjustment" program, or there is a strong possibility that attempted adjustments in land use will be defeated by population trends that have not been taken into account. These trends will not, do not, and have not consisted primarily of a "back-to-the-land" movement. They have consisted to some extent of the slowing down or comparative smallness of the amount of migration

134471—39——4

from farms, but to an even greater extent of high rates of natural population increase that add to the resident population more rapidly than the land adjustment program can possibly subtract from it.

It would be very difficult to prescribe complete farm population readjustment programs for all of the land use problem areas of the Nation. This article does not presume to do so. It presents data only from secondary sources, but the analyses possible from these data would seem to warrant the following suggestions:

1. That an analysis of population facts and trends, preferably including field studies, is essential to an understanding of the problems involved in a "land use adjustment" program.
2. That a program of guided, and even stimulated, migration should accompany a land use adjustment program.
3. That major efforts in land use adjustment programs should be made in those areas where population trends—migration and rates of natural increase—are tending to aggravate rather than alleviate land use problems.
4. That a knowledge of the difficulties involved in accomplishing land use and population adjustments in the most poorly adjusted and least adjustable areas will almost certainly lead to the conclusion that a part of the solution of the problem must consist of a direct attack upon the human elements involved; programs of practical education in more efficient use of the natural resources resident in the areas; and relocation guidance, and probably financial assistance, to those who should locate elsewhere.

Baldwin Essay Subjects

Subjects for the 1939 Baldwin prize essay contest have been announced by the National Municipal League.

They include: (1) Population trends and changing land values as they affect planning (in any city, county, or region); (2) The effect of tax limitation laws upon local government (any State, county, or city); (3) The reorganization of county government (in any given State); and (4) The effect of the depression on local government (in a particular area). A prize of $100 is open to undergraduate students registered in a regular course in any college or university offering direct instruction in State or municipal government. Full information may be obtained from Howard P. Jones, secretary, National Municipal League, 309 East Thirty-fourth Street, New York City.

Come Out of the Ivory Tower, Doctor!

by O. V. WELLS

AGRICULTURAL planning, in its simplest and most inclusive sense, is the process by which farmers and agricultural workers endeavor to work out a rational solution to the problems with which agriculture is confronted.

The first essential step, of course, is to decide upon the objectives toward which a plan or program should be directed. The second step is to formulate the program or decide upon the means and methods by which the desired ends can be achieved, and the third step is to carry the plan into execution.

Unfortunately, this is not quite so simple as the process which the average tourist usually goes through when he decides to take a trip. True, the tourist must first decide upon his objective, that is, the city or national park that he wants to visit; must then consult the road map and decide upon the route; and must then actually drive through to his destination. But agriculture is today confronted with three different types of problems, which means that any inclusive agricultural program must be directed toward a whole series of objectives and must involve a considerable number of different lines of action.

Problems Asking for Solutions

One of the chief problems facing agriculture, and one that much of the current work in the field of agricultural planning centers around, is the search for devices to maintain adequate prices and incomes to farmers operating on a commercial scale and producing the major agricultural commodities—corn, cotton, tobacco, wheat, fruits, vegetables, dairy products, and meat. The effort to solve this problem has led in recent years to such programs as the agricultural adjustment, conservation, marketing quota, commodity loan, and marketing agreement programs administered through the Agricultural Adjustment Administration.

A second and equally important problem or series of problems arises from the existence of underprivileged classes in the agricultural group. These problems have to do with questions as to how itinerant farm laborers, sharecroppers, farmers on submarginal or drought-stricken land, farmers on too small farms or rural people without adequate employment, and the ever-increasing number of rural young people who are being dammed up or forced back on the land as a result of the industrial depression and continuing technological improvement—how all of these can attain a decent standard of living and some measure of social and economic security. It is toward these problems that the

rural rehabilitation, tenant purchase, and debt-adjustment programs of the Farm Security Administration are primarily addressed.

The third problem or series of problems has to do with changes in land use needed in order to obtain efficient use of our soil resources and to insure soil and water conservation. The problems in this field are, of course, closely related to the problems in the other two fields, and usually must be attacked in conjunction with them if satisfactory solutions are to be found. This field has long been a subject for research and discussion among technical workers in the State colleges and the Department, and it is the increasing interest in this need for better land use that is responsible for such programs as the current demonstration project and soil conservation district work of the Soil Conservation Service, the agricultural conservation program of the Agricultural Adjustment Administration, and the land purchase program under Title III of the Bankhead-Jones Farm Tenant Act.

It is toward the solution of these problems that most agricultural planning is currently directed. But in addition to the objectives which these problems set, agricultural planners must remember always that agriculture is only one segment of our national economy and that agriculture, industry, and commerce are so closely bound together and so interrelated that plans, programs, or policies affecting nonagricultural income and production also affect agriculture; while agriculture, in turn, must accept the responsibility for maintaining supplies of food and fiber adequate to supply current domestic demand and for so handling and conserving the soil as to insure the maintenance of such supplies for an indefinite period.

Why Agricultural Planners, Anyway?

Agricultural planners must also remember that we live and work under a democratic government and that agricultural planning must be democratically developed and the resulting programs democratically administered. Farmers themselves usually must make the decision as to which problems they consider most important and as to the general type of solution that they believe most practical; but the individual farmer is, as a rule, ill equipped to devote any considerable portion of his time to agricultural planning as such, and is of course handicapped by the fact that his information may be limited and that his own interest in a great many of the problems with which agriculture is currently confronted is relatively small. As a result, our entire system of agricultural colleges and of the several bureaus in the Federal Department has been developed in an effort to help farmers and farm people through disseminating useful information, carrying forward agricultural research, and serving as the focal point for much of the work in the field of agricultural planning and administration.

Since 1933, this last function has become increasingly important as governmental activities in aid of agriculture have been expanded, with the result that increasing attention is being directed toward the question: How can economists and other agricultural specialists best serve the farmers and the general public in the field of agricultural planning and program development?

As is so often the case in the field of the social sciences or social action, several conflicting answers are advanced. There is one school which argues that agricultural workers can function most effectively by carrying on research and by simply bringing the results of their research to the attention of farmers and others through the educational process. Those who advance this argument usually stress the need for academic freedom and indicate that the agricultural researchers and educators should at all times be unbiased and objective in their approach, free from political pressure, and faithful to science, rather than advocates of any specific program or agricultural movement as such.

Beyond question, there is a need for unbiased and scientific research in the agricultural field, but it should be remembered also that when the striving for academic freedom becomes maneuvering to evade responsibility, then we witness a subtle form of political activity directed toward maintaining an assured position on the public pay roll.

The "Laissez-Faire" Argument

There is a second school that argues that agricultural planning should be essentially of the character of industrial planning, and that is usually identified rather closely with the so-called laissez-faire school of economics that developed in England during the nineteenth century, and that is still the controlling economic doctrine in many schools both in this Nation and in England. The advocates of this position argue that agriculture is now in the natural and happy state and that social and economic planning, to the extent that it is needed at all, should be so directed as to leave agriculture alone and to encourage or force an industrial and business organization which also would be characterized by small units, individual management, and free competition.

There is much to be said for this position, provided it means fewer "administered" prices, provided it means increasing and stabilizing industrial employment and purchasing power, and provided it actually can be worked out within our existing social, economic, and legal environment. But considering the fact that both American and foreign economists have been reciting the advantages of just such a policy for at least the last half century, while our technological, commercial, and cultural development has been steadily moving in the opposite direction, some doubts must be raised.

And when the economists of this school argue, as they usually must to be consistent, that such a program should include the elimination of all private monopoly through the adoption of drastic measures for establishing and maintaining effective competition, or through Government ownership, a general revision of our whole tax system with regard primarily to the effect of taxes upon the distribution of income and wealth, a gradual revision of the existing tariff, the regulation of advertising and selling activities in such a manner as to eliminate waste and increase the effectiveness of our marketing system, and the establishment of more definite "rules of the game" with respect to money, so that some Federal monetary authority could be charged with controlling the quantity or value of money in effective circulation, it becomes extremely doubtful if there is much chance of any substantial portion of such a program being adopted within the immediate future, or that the adoption of such a program would mean any less regimentation, control, or Government intervention than is involved in the programs or lines of approach which it is designed to supplant.

The Need for Doing Something About It

And finally, there is a school which argues that action is as important as education and research, and that there is a considerable number of lines of action which can and should be carried out within the agricultural field itself.

This approach assumes that the farmers, the researchers, and the planners must work together as a team in endeavoring to develop devices and methods that fall, in considerable part at least, within the current framework of our experience and existing social organization, and that attack the problem both in terms of what can be done in the agricultural field by the farmers and their representatives, and in terms of what should be done in the industrial or nonagricultural field.

And since this approach concerns itself with what can be done now or in the calculable future, as well as with what seems eventually desirable, its tools include such devices as acreage goals and allotments, crop insurance, commodity loans and storage, marketing quotas, conservation and parity payments; the diversion of surplus products for relief purposes and into new uses or export, marketing agreements and orders, and market inspection, grading, and regulatory work; rural rehabilitation, unit reorganization, and resettlement; soil conservation districts, flood control, forest conservation, and the retirement of submarginal land from cultivation.

The advocates of this approach also realize that agricultural planning is necessarily a continuing process, since both the nature and the intensity of the problems with which farmers are faced, as well as the

nonagricultural forces which must be taken into consideration, are continually changing, so that final solutions and ideal programs can rarely be developed. This means, of course, that all agricultural planners, whether they be farmers, administrators, or agricultural specialists, should be as much interested in the development of a flexible and efficient mechanism for continuous agricultural planning as in the development and administration of specific programs as such.

Such a continuous process necessarily must involve the observation of the several action programs in the field and a straightforward appraisal of both their shortcomings and accomplishments; the correlation of research relating to factors affecting prices, to farm management and desirable patterns of land utilization, to normal or current market requirements, and to standards of living and cultural development; and an understanding of what farmers want, of the reasons behind their wants, and of the costs or sacrifices they are willing to incur in order to accomplish the desired end.

Courses in Planning Surveyed

Results of a survey by the National Economic and Social Planning Association, to discover what instruction in planning is being offered in current college courses, are given in a pamphlet, Planning Courses in American Colleges, 1938, newly released by the association.

"Where formerly social progress was considered to be the automatic byproduct of the economic system," says the foreword, "today many believe that it must be the primary objective of a prudently directed economic system. College curricula are reflecting this revolution. As a result, courses pertaining to planning have been increasingly introduced into American colleges and universities."

The courses offered in American institutions of higher learning have been divided into five general classifications: economic and social planning, economic policy, industrial policy, resources planning, and community planning. Copies of the pamphlet at 25 cents each may be had from the National Economic and Social Planning Association, 1721 Eye Street, NW, Washington, D. C.

Farmer-Made Programs in a Texas County

by D. A. ADAM

THE proof of the pudding is in the eating. Aware that this truism is sound, the farmers of Young County, Tex., now in the midst of their fourth year of county agricultural planning, are definitely favorable to the eating qualities of the county planning pudding.

In Young County, program planning by farmers is showing tangible results right now, and its promise of future advances in farm well-being is the more confidently accepted for the reason that it already has some pretty definite accomplishments to its credit.

Recommendations of the county planning committee that livestock herds be increased, for instance, together with the findings responsible for the recommendations, are being used actively by several chambers of commerce in their agricultural programs.

Another example of the utility in Young County planning has been the Farm Security Administration's use of farmer-developed plans in its tenant purchase program. Five farms were bought in the county last year by the FSA, the sizes of the farms and their locations being decided upon after conferences of the county agent, the FSA county committee, and the administrator. The recommendations of the county planning committee were followed as closely as possible for each area.

This demonstration of the practical effectiveness of farmer-decided recommendations in influencing the Federal agricultural action programs is of special interest just now, when county planning work everywhere is being converted into a working guide for operation of these programs.

The farmers' program was called into use last December, to cite a third instance, when the county agent presented to the commissioners' court, governing body of the county, a report of the planning committee on the need for purchase of machinery for terracing and soil conservation work. Largely as a result of the work of local land use committees, the county now has purchased and turned over to the county agent's office a four-wheel tandem drive motor grader costing more than $6,000. This machine is being used for terracing, contouring, ridging, and other soil conservation work.

Our work in program planning, which began in 1936, has shown that county-wide planning, based on the recommendations and plans of the farmers themselves, provides many avenues to better agricultural practice that are not offered through any other means. It offers an opportunity for analysis of the agricultural situation of the county in

terms of specific needs of the county. The county agent and the farmers on the land are given a sharper picture of their problems. This, in turn, enables the formulation of definite work plans that fit closely the needs of the county and of each community in it.

The framework for successful county planning has been built around community organizations. Through these local planning groups, discussion meetings, demonstration groups, and community organizations we have been able to do much more effective work than otherwise would have been possible. Local planning committees have developed standards and objectives for farming and homemaking in individual communities and for determining what the agricultural problems are in those communities.

In 1936, the first year of county-wide planning for this county, eight program planning meetings were conducted. In retrospect, they appear important as a pioneer effort. Data from the 1935 census were used as a working basis, and the entire county served as the unit for consideration of our problems and their solutions. Not enough consideration was given the farm home as a unit in planning work, and the fact that different problems affect different soil type areas was not given sufficient attention. The outstanding accomplishment of the first year's work, perhaps, was that the planning committees began to teach their members how to think and act together, from a community and a county-wide standpoint. Attention was directed especially to promoting thought upon the problems of soil fertility and soil conservation.

Widening the Farmers' Economic Horizons

The county program planning committee of the following year carried the work a step farther, in that a wide variety of economic information was given at the many discussion meetings that were held. More time, too, was spent in directing the thought of farmers toward the problems of their own farms. Farm data sheets were given to every farmer attending the discussions, so that he could supply the committee with a picture of the problems on his farm and of his suggestions for solving them. Farm data sheets were returned to us by 600 farmers.

From this number, the committee selected at random 85 data sheets, the information from which was used in setting up a model farm for the county. The committee took into consideration average crop acreages, soil fertility, and the suggested soil conservation practices. Using this farm as a basis, total crop figures and conservation practices that seemed desirable for the entire county were arrived at.

The 1938 program was much more effective than that of the first year, in that it went much closer to the farm home and represented more accurately the individual thought of the farmer. However, we still were dealing with too large a territory as a unit, and were not yet

directing enough attention to the number of soil types in the county and their effect on farming set-ups.

Up to this point, community-wide discussions were our means of presenting economic information and explaining and teaching how program planning can and should fit into farming operations. Newspaper publicity and additional community-wide discussions helped to acquaint farmers with the results of the work made possible through the planning committee's activities. Very valuable experience, available in no other way, was obtained by the county committee, the county agent, and the home demonstration agent in conducting planning work, both in 1936 and 1937. The committee members in each of those years worked long and hard in arriving at county totals and at recommended farming and land use practices.

Enthusiasm Grows by What It Feeds Upon

And as the committee worked, enthusiasm mounted. It is our observation that the deeper a group gets into program planning work, the keener becomes the enthusiasm of the workers. This is reflected today in the fact that the month when program planning work is done in Young County has, within a 3-year period, become a principal highlight of the extension program's activity. All committees in the county dealing with farm problems look forward with wide-awake interest to the discussion meetings that fall within the month.

As a result of the experience of 1936 and 1937, program planning in 1938 was worked out on a much more comprehensive scale. The first step in the new plan of things was the selection of a larger program planning committee, composed of 10 men and women from the agricultural council and the home demonstration council. With assistance of the county agent, this committee reviewed in detail the work of the 2 previous years, and then met in a 2-day conference with representatives of the Extension Service. After this conference, it was decided that the 1938 program should be based on an approach to farming problems that would take into account the differing soil types of the county.

Since the program was taking this new direction, a division of the county into soil type areas was necessary. The first division agreed upon was four soil type areas, a figure that the county committee later changed to six, as soon as preliminary mapping was completed. Work sheets—the farmers' statements of proposed operations on their farms—then were tabulated according to soil type areas and communities, so as to make clearer the conditions of crop bases, total cropland, and crop yields. Range applications were tabulated on the same basis. A tabulation also was made of AAA compliance certificates, to assure accuracy in determining what farming practices had been carried out in the county in the preceding year.

On completion of the preliminary map of soil types, with the resultant establishment of six soil type areas, the county program planning committee was divided into subcommittees for each of these areas. The subcommittees then were given a tabulation of work sheets and other data for their areas, and from this they studied existing conditions, particularly as to sizes of farms and types of soil. From the conclusions reached by these subcommittees, a recommendation as to what an economic-sized farming unit should be was made for each area. At this point a host of interesting facts began to develop with relation to the size and balance of crops needed on such a farm.

Dealing With the Fabric of a Community's Life

Painstaking effort toward accuracy was preserved always. This was a task, not simply of putting down cold and lifeless figures, but of retiring crop land, expanding range acres, and dealing with the very threads of the fabric of life in a farming community. Committee members knew that their work would be studied by large groups of farmers, businessmen, bankers, and others, and that accuracy was essential. Finally, the report being completed, copies of it were mailed to these groups, to chambers of commerce, vocational agricultural teachers, and many others, with the request that the report be studied and discussed, and that suggestions for improvement be made for use in 1939. This entire set-up, of course, was discussed vigorously and at length in the many meetings during the year.

Despite this progress, however, we realized that the program had not gone far enough. We had discovered what some of our problems were, but had done little toward their solutions. For example, in Young County there are an estimated 1,840 producers, according to the 1935 census, while the number of farms recommended by the planning committee when it finished its 1938 program was 1,089. If the recommendations of the committee are followed, quite a number of farm families must be relocated. This is cited as an instance of the problems revealed by the county committee's studies of its own area, and toward the solution of which there has been no effective action as yet.

To provide avenues for action toward solution of them is the definite aim of the 1939 program in the county. As now constituted, the program will be rooted in the thoughts coming from the farm home, from the farmer and his wife, and it is planned to aid this through a widespread series of local meetings within the various soil type areas. One of the goals for this year is the establishment of a permanent organization of the program planning committee, operating on very flexible lines, to assure future consideration of these problems in planning.

The 1939 plan of organization calls for election of a committee of three or more farmers from each soil type area, this to be decided by

size of the area. The committee will become a permanent unit in the extension set-up of the county and will be called the land use committee. Community meetings then will be held for review of previous years' recommendations and for possible changes in their structure. The committees will receive a complete list of all agencies that affect agriculture within the county and will discuss in detail the functions of each agency and the types of services available through it. Greater coordination of land use programs and land use planning, as well as greater use of these services by farmers, is expected to result.

Each of the 1939 committees will make a soil survey map of its area, tabulate its needs, and list each agency concerned with these needs. In each of the six soil type areas this is the procedure to be followed.

Smoothing Out the Rough Spots in a Program

As a step in the coordination and correlation of planning work, the county land use planning committee this year will be composed of two members from each of the local planning committees, supplemented with a committee of five members each from the home demonstration council and the agricultural council. The primary purpose of the committee will be to consolidate the requests and recommendations of the local groups into an integral program, functioning smoothly and effectively for the entire county, as well as for the particular soil type area.

Up to this point, it will be seen, the thought going into the program of county planning is that of farmers, originating from neighborhood discussions, family gatherings, and from the seasoned experience of the men who live on the land and therefore know it best. Its inception is rooted in practical experience.

There is a place, however, for the knowledge of specialists in the program being developed in Young County. After the county plan has been completed by the committee with the assistance of the county agent, an invitation will be issued for a meeting of committee members, representatives of agencies dealing with farm problems and specialists of many kinds. The committee's program will be discussed in detail and each of the agencies will be asked to assist the county and local planning committees in working out solutions for the needs of the various areas.

The land use committee, a permanent organization, will have general charge of planning work, and from time to time other committees may be chosen to consider special types of programs. The execution of the various programs, of course, will be in the hands of the agencies most directly affected, with local land use committees and subcommittees for soil type areas collaborating. In this manner, our experience to date indicates, the farmers of Young County will receive the maximum benefit from all available programs.

Canada's Land of Little Rain

by G. H. CRAIG

IN THE area in which a large part of Canada's wheat crop is produced, uncertainty plays a dominant role. The production of wheat is the major function of the prairie economy and the regional income follows closely the fluctuating yield and price of this single commodity. Herein lies the chief reason that the three prairie provinces of Manitoba, Saskatchewan, and Alberta have been subject to such variation in scale of living.

The largest area of wheat production lies in the semiarid plains where precipitation varies so widely and unpredictably. In one of the driest sections, Medicine Hat, Alberta, annual average rainfall has ranged between 6.38 inches in 1931 and 25.28 inches in 1927. While annual precipitation figures are an inadequate index of moisture efficiency, they do provide a means for measuring variability.

An old plains farmer once remarked: "Annual rainfall? We have no such thing as annual rainfall here. Once in a long while it rains."

If further evidence of variability and uncertainty were needed, it is clearly reflected in the history of wheat yields. The Province of Alberta produced an average of 31.1 bushels per acre in 1915 but only 7.6 bushels in 1918. In Saskatchewan the range was even greater with a low of 2.7 bushels per acre for the whole province in the year 1937.

Drought Plus Low Prices Equals an Exodus

The occasional association of high yields and high prices and of low yields and low prices has intensified the fluctuations in income of the wheat farmers and of the prairie economy as a whole. The occurrence of two major periods of low yields and low prices so diminished the returns of wheat growers that abandonment and relief subsidies became general over a wide area. The first period followed the World War. The huge demand for arable land during the war extended the wheat area beyond any reasonable margin of normal cultivation into some of the most arid sections of the West. A bumper crop in 1915 and high war-time prices overrated the land in the minds of the settlers. When prices dropped in 1920–21, and dry years followed, many thousands of families left their farms and moved north or into the cities and towns. In this period of stress such alternatives were available. The result was a significant reduction in population density in the driest areas and a reorganization of agriculture in the direction of less intensive operation with larger units and increased grazing.

Some extension of the wheat margin again occurred in the middle and late twenties, but the coincidence of the great depression and a

series of drought years following 1929 precipitated the second period of disaster. Most of the crop failure again occurred in the southern sections where drought and soil drifting were most severe and where the mistakes of breaking a once useful grazing area were most evident. The lack of alternative enterprises for the wheat farmer deprived him of the means of support for his family and deprived the community of essential social services due to failing tax revenues. The situation was the more critical in the recent period due to the limited opportunities available in other rural areas for settlers without capital, and to the lack of employment openings in the cities.

First Provincial Policies of Rehabilitation

Even before this time, the Alberta government had undertaken to readjust the municipal organization and the land use pattern in certain areas subject to extreme drought. The northern movement of farmers was subsidized by the Department of Agriculture and the railways through a free freight policy. Several consecutive years of feed and seed loans prior to 1923 had made the public aware of the problem and led to the Government's action.

As the result of a commission of investigation in 1926, the Alberta authorities established a program designating certain municipalities as "Special drought areas" to be controlled and supervised by an appointed committee. The object was one of farm reorganization to provide more certain and more adequate returns and to maintain at least the essential community services. Most of the land in the delimited areas was tax delinquent. Large landowners, such as insurance and mortgage companies, voluntarily surrendered their holdings, sometimes after removing the buildings and fences. Special tax-recovery proceedings brought most of the remaining land into public ownership. By the end of 1938 the "Special drought areas" included about 13,000 square miles, or more than 8 million acres of once well-settled territory. Most of the 8,000 farmers who remained, leased their holdings from the committee. The once broken sod was gradually restored from weeds to prairie grass, although the process was retarded by lack of moisture and overgrazing. The committee made a conscious effort to allot the land to provide optimum size of units for the operators, many of whom combined a wheat and range-livestock farm plan as a means of livelihood.

The Alberta experiment is an interesting attempt to reverse the former policy of alienation of lands from the public domain as rapidly as possible. Some tangible results already are appearing in more stable returns to the farmers operating in the "Special drought areas." If success is attainable with public ownership and private operation under the least productive and most unpredictable conditions, one naturally wonders what might be the possibilities of extending the policy to the better lands of the drought area.

Rehabilitation of Farmers in Their Own Communities

The magnitude of the problem in the recent drought period attracted the attention of the Federal authorities. The only answer appeared to be rehabilitation of the farmers in their own communities. Such was the task set by the Dominion Government when it passed the Prairie Farm Rehabilitation Act in 1935. Funds were provided to establish action programs for water conservation and soil erosion control, for experiments in agricultural practices, and for research in land utilization and soil surveys.

Many of the programs undertaken under the act were closely allied to changes in the use of land. These included the water-development services in which small irrigation projects, dams, and dugouts were constructed in strategic positions on a cooperative basis with the farmers and ranchers. Much of the experimental work in soil-erosion control dovetailed closely into a revised system of land use with its strip cropping, cover cropping, regrassing, and other similar practices. Some progress was made in community organizations of farmers for educational activities. One of the most important developments to come out of the action programs was the establishment of numerous community pastures. A total of almost 1,000 square miles of these pastures was set aside and fenced by the end of 1938 in the Province of Saskatchewan alone and the program likely will be continued. This was the means of retiring submarginal wheat land and making available the supplementary enterprise of livestock grazing for those farmers who remained in the area. The pastures were varied in size according to the nature of the land and to the possibilities of transferring farmers within the designated areas to other sites outside the pasture.

The Place of Research in Canada's Problems

Economic research worked closely with many phases of the general action programs. Research in land utilization began in the summer of 1935. It was financed chiefly by the emergency appropriation under the Prairie Farm Rehabilitation Act of the Dominion Government. The cooperating agencies were the economics division of the Dominion Department of Agriculture and the economics and farm management departments of the Universities of Alberta and Saskatchewan. Some financial aid was provided by the provincial departments of agriculture.

The methods and procedures of the investigation were in part dictated by the nature of the physical and economic data and in part by the objectives defined. Since the areas of real distress and greatest public subsidy were those of the prairie region afflicted by drought and soil drifting, the information collected was largely associated with short-grass plains farming practices, wheat yield, soil cover, soil type, wind erosion, capital inventory, financial history, and ownership pattern.

The project developed largely into a land classification study. Labeling of the land parcels in broad categories and their mapping therefore became the major function of the program. The technique itself took the form of preliminary budgeting of the probable net returns for each parcel. This was done on the basis of soils, topography, and other available physical data; wheat yields; farm management accounts, and price and cost information from other studies. Criteria of adequate returns for an average size wheat farm were determined and the budgetary results compared with this scale.

Five land classes were distinguished. The first was defined as clearly below the margin of use for arable farming but often useful for grazing; the second on the margin of use for wheat; and the remainder above that margin with a successively increasing proportion of the returns allocatable to land rent. The budgets provided the preliminary rating for every quarter section of land in the areas studied. Then, armed with a map of the ratings and all of the physical material available regarding soil, climate, and topography, and with aerial photographs of the country, the field investigators made the rounds of their territory, inspecting and finally classifying every quarter section and visiting every farmer. From the latter a short statement was taken of capital inventory and wheat yield history, in addition to financial situation, relief, and general attitude with respect to the future.

Emergency and Long-Time Uses of Research

The emergency phases of the land use research program are still uppermost in the Canadian plan. However, the land classification studies and soil surveys are contributing a body of material that is basic to any policy of reorganized land use. For instance, regrassing of large areas of drifted and eroded land cannot be accomplished successfully without an adequate knowledge of the soil capabilities, the production alternatives and the pattern of farm-ranch organization presently existent. This applies in like manner to the irrigation schemes, community pasture and "Special drought areas" rehabilitation plans.

The research data will provide a useful basis for the over-all adjustment of the land pattern to the various regional comparative advantages. These are long-time considerations and therefore require analysis of the permanent forces of nature in their relation to expected price conditions of the future. In the meantime, it is recognized that population and capital inertia are such as to retard the rate of progress of any rehabilitation or reorganization program. The advance of the land classification studies into a wider area should provide more suitable data for farmers and for policy makers if or when resettlement possibilities are contemplated.

Parallels and Contrasts in Two Countries

The comprehensive land-utilization program of the United States Department of Agriculture so far transcends, in scope and ambition,

any organized action and research policy of like nature in Canada, that comparisons are of little utility. The American program aims at a national adjustment of agriculture to a single major theoretical goal—parity income for agriculture, both regionally and nationally. All phases of production control, rural rehabilitation, resettlement (at one time), soil conservation, and price and credit policies contain this purpose in some form or other. Any attempt to reconcile all of the farm programs with the goal defined would present many contradictions. Nevertheless, it is at least a conscious aim.

The research and action programs in the Northern Great Plains correspond in general with those of the western Canadian prairies, due largely to the similarity of the problems. Water development and irrigation schemes, soil-conservation practices, relief programs, and land-utilization research are of a parallel nature. More attention has been paid to large-scale soil conservation demonstration projects in the United States. The Canadian Government probably has expended more effort than the American in the community pasture scheme, although the Montana grazing associations and other similar projects have the same aims. The major difference lies in the attention given to the individual farmer. The research, extension, and control policies of the United States are much more comprehensive and much more time is spent on individual farm plans. This is partly due to the AAA program, with its requirement of compliance with acreage allotments, and to the operations of the Soil Conservation Service with its ready aid for individuals and groups.

One thing that the Canadian and American programs are likely to have ever in common is the struggle against uncertainty. Until less dependence is placed on the highly speculative wheat crop and increased reserves of feed, seed, and water are established, little hope of permanent community development can be expected on the short-grass plains.

Contributors to This Issue

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Extension Service Reorganized

Reorganization of the Extension Service went into effect February 1 as a sequel to the departmental reorganization ordered recently by Secretary Wallace.

The new set-up groups the Extension Service under five main heads: Office of the Director, with Director C. W. Warburton and Assistant Director Reuben Brigham, and Technical Analysts W. A. Lloyd, C. L. Chambers and H. W. Gilbertson; Division of Business Administration, M. M. Thayer, Chief, and W. H. Conway, Associate Chief; Division of Field Coordination, H. W. Hochbaum, Chief; Division of Subject Matter, Mr. Hochbaum, Acting Chief; and Division of Extension Information, Mr. Brigham, Assistant Director of Extension Work, acting in charge.

The Division of Field Coordination under Mr. Hochbaum will have charge of developing Federal-State programs and plans of extension work in connection with the land use program. It will be charged with the organization and supervision of State and county work, the correlation of State and county programs with the work of Federal agricultural action agencies, and will conduct studies of the effectiveness of extension teaching methods.

The division consists of two sections, one devoted to program planning and organization, with Mr. Hochbaum temporarily acting in charge, and the other devoted to studies of extension methods and reports received from State and county extension workers, under the leadership of M. C. Wilson.

From economic and subject matter sources, the Division of Subject Matter will develop materials useful in extension program building, and will analyze and develop plans to improve farm management, home management, and production methods. It will act also as liaison agency between the Extension Service and Department subject-matter and economic bureaus to speed the release of basic facts for use in the States. In this division are two sections, the economic extension section in charge of H. M. Dixon, and the agricultural and home economics section in charge of S. P. Lyle.

The Division of Extension Information, temporarily under Mr. Brigham, is given the task of coordinating and preparing extension information and visual materials, and with teaching the effective use of them. Lester A. Schlup is in charge of the visual instruction and editorial section, which develops and teaches the use of visual aids, publishes a national professional extension journal, handles informational contacts with State extension services, and edits extension publications. J. W. Hiscox is in charge of the exhibits section, which prepares exhibits and distributes them to State, interstate, and international fairs. The third unit in the division is the motion picture section, with Raymond Evans in charge. This section prepares and distributes films related to extension work.

Books

A Southerner Discovers the South. *Jonathan Daniels. The MacMillan Co. $3. Pp. 346.*

Forty Acres and Steel Mules. *Herman Clarence Nixon. The North Carolina Press. $2.50. Pp. 98. (Large format.)*

"The South is awaking, scratching at new desires," Jonathan Daniels says in A Southerner Discovers the South, in order to point up a description of growing discontent in the South with what he calls the "old do-without plan."

Once the southern people were sleepy, but now they are stirring under the prod of an awakening desire for the comforts, and conveniences, and advantages of twentieth century living in America, says this new discoverer of backward regions. And he foresees in the growing discontent of the underprivileged the chance that a regional plan may come to birth, to bring to his people the material and cultural advantages they have been lacking so long.

Journeying from the Virginia plantations on the Potomac to the sand flats of Florida, from North Carolina's "Gold Avenue" of textile mills to the back country of Louisiana and the Red River plantations in Arkansas, from Knoxville where the Tennessee Valley Authority is making social and industrial history to smoke-belching Birmingham and to the canyonlike eroded gullies of Stewart County, Ga., Daniels gives a composite picture of the workings of the "do-without plan." And everywhere he finds the first signs of a people wanting to throw off their chains, or chafing under them. Himself a newspaper editor, Daniels naturally attributes the new discontent to the spread of advertising in the South, which, he thinks, has created and kept awake a people's desire for material comforts. It may be that some observers of the southern scene, who are impressed with the attitude of hopelessness so often found there, will disagree with him on this score.

Moving among a people he knows intimately, seeing them in situations which to him are familiar, the author shows the part that repression of the Negro, the low level of industrial wages, protective tariffs, freight rate discrimination, absentee landlordism, farm tenancy, low educational standards, poor health, and high cost of credit, and other factors have played in retarding the social and economic well-being of the region.

Believing that a regional plan must be born in the South to make its people accomplish their now-awakening wish for the good things of life, Daniels enumerates the points such a plan should include. Among these are expansion of education facilities, public health work, public welfare action, and the relinquishment by other sections of artificial advantages over the South seized during the Civil War. A hint of the need for Government aid in such a program is given when he points out that the children of the South, needing education, better health, better living standards, are the problem of the Nation, as well as the South.

Many points of similarity may be noted between Daniels' A Southerner Discovers the South and Nixon's Forty Acres and Steel Mules, since both are concerned with the social aspects of southern problems. Forty Acres and Steel Mules, however, is exceptionally interesting in its stronger preachments for the need of social planning and action in the South on a cooperative basis, with particular reference to development of a better rural village life.

The latter publication, which contains, by the way, a very fine bibliography of outstanding publications on farm tenancy and related problems, summarizes interestingly the growth of Government activities and collective enterprises in the South that are designed for healthier community organization. With great emphasis on the experience of Great Britain in eliminating farm tenancy in Ireland, where 400,000 farmers have been aided to farm ownership since 1871, Nixon holds that the community needs of the South would be well served by a similar bold effort by the Government for developing farm villages and village social life.

Problems of land use adjustment in the Southeast, due to the increased mechanization of cotton agriculture—"steel mules"—receive adequate and well-informed treatment here. Race relations, labor relations, credit policies, the need for broader protection of civil liberties, and some of the social attitudes associated with tenancy are dealt with in an understanding, but factual, manner. The author concludes, as does Daniels in A Southerner Discovers the South, that a broad program of action is needed. Emphasizing, however, the necessity for social reforms, Nixon states plainly the belief that much of this action must be on the social front, or that the South must resign itself to poverty and disintegration.

More than usually informative as a reference guide and as a panoramic view of southern tenancy and rural social conditions, Nixon also has made very effective use of pointed photographic illustrations supplied by the Farm Security Administration. These illustrations are pieces of contemporary life in the South, evidently chosen with great care for the purposes of this publication.—B. J.

BEHOLD OUR LAND. *Russell Lord. Houghton, Mifflin Co., Boston, Mass. pp. 310. $3.00.*

Russell Lord set himself an almost impossible task when he undertook to tell the story of the earth within the usual confines of a book. It is a story that required the "projecting in terms of the clock and calendar the vast stretch of time during which this land was in the making" and which required, at the same time, the particularizations that would make the book fit the necessities of the present hour.

That these necessities were brought about largely through the way this body of land has been treated during the ages is the fact that motivates the book, but as the story unfolds many diverse aspects of the long epic have their reflections here. Primal stardust, celestial dynamics, cosmic considerations, give way to the wisdoms of ancient China, the protections of the wooded hills of the Holy Land, and the husbandry of Virgil, which in turn are replaced by reflections of the high adventure of taking and making land in new countries, of spacious living on plantations growing old in the eyes of their generations, of the excitements and challenges of western bonanza farming. These in turn give way to the land problems now facing the farmers of America—erosion, overgrazing, worn-out soils, denuded forests, dust storms, and floods.

With a practiced hand Russell Lord accomplishes all this with Guedallalike flashes of his literary searchlight whose beam, whether trained on a great epoch or on a small farm in Maryland, always brings forth something significant to the understanding of the story.

The problems of today are frequently posed through the words of the actual men and families who are wrestling with them, so that parts of the book are intensely practical. Clever stage-managing accomplishes readily the shift from Virgil to Col. William Byrd, to Hugh Bennett, to Hiram Jones. Striking photographs, recommended readings, and an introduction by William Allen White, tie the theme still closer to the public.

An historian who has reviewed this book for an historical journal has said, in effect, that although it is not history in the formally accepted sense, it is the sort of writing that historians may well heed. Certainly the same may be said of agricultural and land economists, who must gain the interest and support of the common people if their plans and work are to reach their greatest usefulness.

Proving that similar methods can be used in working programs, Russell Lord has written, at the request of the Department of Agriculture (for limited distribution as Misc. Publication 321, under the title To Hold This Soil) a similar story in far briefer but no less attractive form.

For all its sweep and breathless pace the book does not leave us in midair. Far from it. The final chapter traces but briefly the attacks that are now being made by armies without banners in a battle without

guns against the evils of waste, preparatory to a long-time campaign. In this campaign trained workers will be sorely needed, but the recruiting call is so well pointed toward the high-hearted among our young people that the prospect is encouraging.—CAROLINE B. SHERMAN.

JOBS FOR ALL THROUGH INDUSTRIAL EXPANSION. *Mordecai Ezekiel. Alfred A. Knopf, Inc., New York. 1939. 299 pp.*

The basic principles of industrial expansion were suggested by Dr. Ezekiel in his book $2500 a Year, published in 1936 by Harcourt, Brace & Co. At that time his proposal was called industrial adjustment. The new book is justified on the grounds that "certain modifications of method and a clearer formulation of possible procedures have come out of the subsequent study and discussion of the original proposals."

The proposal for industrial expansion outlines a definite political and administrative procedure for organizing and planning industry for full production, providing for democratic participation at every step. Under the proposal, each of the key basic industries would prepare tentative programs for expanding its operations and pay roll in the year ahead, and then check and revise those tentative programs against each other to be sure they fit together properly. A special Government agency would contract in advance for the planned production of each concern in these industries. Under these contracts, any portion of the programmed production remaining unsold would be purchased by the Government agency at an agreed upon discount, say 10 percent below the regular price. Such a contractual arrangement would make it safe for each concern to go ahead with the planned expansion in production and employment and the Government would incur little risk in underwriting the expansion in production, for the programs would be drawn and fitted together in such manner that the increase in production in each industry would just about match the increase in demand for the products of that industry. The market for the increased production would be provided by the increases in pay rolls and in purchases of plant and equipment by industry. Under expansion programs it would be possible to have fuller employment, higher wages, larger profits, and lower prices, all at the same time.

The cooperation of businessmen would be sought primarily through widespread discussion and acceptance of what industrial expansion aims to accomplish. When the idea had been generally accepted, the necessary legislation would need to insure that all concerns in each major industry would cooperate. One way to do that would be to reverse the method that the original AAA used with farmers. Industrial products could be taxed and the money used to pay industrial concerns to produce more. Concerns that refused to operate according to their industry program would then have to pay the processing tax imposed on all concerns in industries under a program, but would get back no

refund; or would suffer other hardships, according to the kind of sanctions provided in the basic legislation.

The industrial expansion programs would not be devised by a business management group alone, but would be worked out in an industry council or authority, where management, organized labor, consumers' interests, and the Government would be equally represented. The planned program would be restricted to a few selected key industries—the major heavy industries: Steel, cement, automobiles, farm machinery, copper, aluminum; and the standard lines of textiles, clothing, and shoes. The latter group would be included because it tends to considerable instability, because it adds to the instability of the machine tool and other capital goods industries, and because competition in these industries tends to degenerate into competition to see who can get his labor cheapest. Correlated programs of expansion would get under way in the related industries that already are provided with some form of public planning or control, including the postal service, agriculture, railroads, telephone, telegraph, and other interstate utilities. "Beyond that, competition will be depended upon to extend the advantages of Industrial Expansion to the diversified and manifold activities of wholesale and retail trade, the service industries, and publishing and advertising."

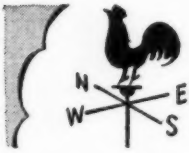
Dr. Ezekiel makes some rather general suggestions regarding methods of determining the degree of expansion in each industry and allocating production quotas to individual concerns in the major industries. Considerable attention is given to the anticipated effects of industrial expansion on employment, wages, profits and prices, working and living conditions, old-age pensions, farmers and farm laborers, housing, railroads, utilities, small businessmen, and competition.

One must be a thoroughly confirmed believer in the efficacy of the democratic process as applied to Government-business cooperation to accept Dr. Ezekiel's contention that his industrial expansion proposal would lead to fuller political and economic democracy, and not toward fascism. He contends at some length that "democratically planned expansion would not subordinate everything to a dictatorial state, as does fascism; . . . it would not place all ownership in public hands, as does socialism; . . . it would preserve and utilize the most valuable elements of capitalism; . . . and, most important of all, it would broaden and intensify that conscious participation of workers in government and in the direction of the life of the country which is democracy's most vital feature."

In view of the rather large volume of current literature dealing with interstate trade barriers, it is surprising to find Dr. Ezekiel, in extolling the virtues of the United States as compared with some of the European countries, stating, "No tariff barriers or other artificial political restraints hinder the interchange of goods from one end of the country to the other" (p. 12).

Dr. Ezekiel does not advocate an immediate start on industrial planning. He suggests that if the country can wait, a 10-year period of work on the economic problems of industry, similar to the work on agricultural economics for farmers that preceded creation of the AAA, should precede the actual undertaking of positive programs of industrial expansion. In that 10 years a Bureau of Industrial Economics could be established in the Department of Commerce and could develop guideposts for industry. But he suggests that we may not be able to wait 10 years. "If the new spending program does not produce full recovery, we may have to try something along the line of industrial expansion sooner than that."

The shortcomings of such proposals as single-industry planning, the 30-hour week, monetary and fiscal policies, cooperative buying, and rearmament as methods of making jobs for all our workers and keeping them at work are pointed out. Industrial control through industrial self-regulation, the "trust-busting" approach, and the yardstick approach are found relatively ineffective when compared with the concerted economic planning proposed under industrial expansion.—JAMES H. MARSHALL.



Here and there

★ USING WPA workers, Montana State college has made a number of surveys of Montana farm problems and published about 40 bulletins on these findings. . . . President A. L. Strand stresses the value of the soil-survey project, which included soil classification and information on economic grades of the land. . . . The results have been mapped in plat sheets available to county planning agencies and other groups. . . . Additional surveys deal with farm mortgages, farm finance, irrigated lands and range land, livestock, land ownership, types of farming, mobility of families, land utilization, the state income-tax system, and correlation of statistical data.

★ DETAILED data on land quality and resources for nearly 300 towns in Massachusetts will be available when the present land-mapping project of WPA is completed. . . . A set of five large-scale maps of land use, quality, resources, contours, roads, waterways, and the nature of all man-made structures in the rural areas of the State is to be released when the work is finished. . . . The map sets will be placed on sale for public use.

★ A VIGOROUS effort to improve living conditions for its people is being made by the Greenville (S. C.) County Council for Community Development, under financing of a national foundation and Furman University. . . . Research and planning work is done by 10 specialists in education, arts and crafts, social welfare, rural sociology, health, economics, government, recreation, drama, and music. . . . Their research has covered a wide scope, including studies in educational retardation of children, condition of Negro school buildings, crime, social welfare agencies, health units, recreational facilities and needs, social welfare and health expenditures. . . . Citizens of the county are using the facts obtained through research to help them plan remedial measures.

★ LAND problems are in essence human problems, as the National Forest Reservation Commission makes clear in recommending to Congress the purchase of 25,066,877 acres of privately owned forest land. . . . Its report says the purchases would prevent the "social and economic decline" of people dependent on the land and that continuance under private ownership may result in waste of timber, range, water, wildlife, and recreational resources. . . . The Government has purchased 15,672,572 acres of national forests since 1911.

★ COMMUNITY refrigerators are helping southern farmers. . . . In a typical case in the Tennessee Valley, a group of 10 to 12 families obtains refrigeration for a cash investment of about $60 per family with maintenance cost of 50 to 75 cents a month. . . . The gross saving to the group is about $500 yearly, and each family has improved its diet through having year-round fresh vegetables and meats.

★ MEMBERS of the Idaho Legislature soon will have available a complete study of taxation problems for the State. . . . This study, the work of the State planning board, provides data as to the tax base, tax rates, revenues, expenditures, and the current public debt for each of the State's 44 counties. . . . An over-all report on the State tax system also is being prepared by the board.

★ ABOUT 31,000 farm families eventually can be accommodated on the 2,500,000 acres of land that new irrigation developments are making available for cultivation. . . . Reclamation Commissioner John Page reports that 222,681 persons were supported on 51,834 reclamation-projects farms last year, and that 650,826 were supported in 254 project towns and cities in the Western States. . . . Settlement on some projects will be possible within a year or two. . . . Projects such as the Grand Coulee in Washington, however, may take 20 years for fullfillment, the Commissioner reports.

For your attention

√ THE ROLE OF THE PLANNING CONSULTANT. *Russell Van N. Black. Pennsylvania Planning. 3 (6) 13. (Pennsylvania State Planning Board, 928 Third Street, Harrisburg, Pa.) October 1938.*

A good planning consultant, says Mr. Black, is one who has accumulated and digested a wide variety of experience pertinent to public planning, his observations constituting an informal laboratory of experiment and measurement. That this process may not always be a formal statistical approach does not prove that the expert is lacking in competent analysis, or disprove the merit of the scientific method, but, says the author, may prove that the expert has reduced a great variety of intangibles to concrete terms for use in planning.

√ SELECTED REFERENCES ON THE HISTORY OF AGRICULTURE IN THE UNITED STATES. *E. E. Edwards. U. S. D. A. Library. Bibliographical Contribution No. 26 (Ed. 2). Washington, D. C. January 1939.*

This list of references has been prepared primarily for use of those who need citations and articles that afford convenient summaries of the main facts concerning the history of agriculture in the United States, or of some major period of its history.

√ REFERENCES ON AGRICULTURE IN THE LIFE OF THE NATION. E. E. *Edwards. U. S. D. A. Library. Bibliographical Contribution No. 34. Washington, D. C. January 1939.*

Representative references on agricultural developments and community growth.

√ LAND USE PROBLEMS IN CENTRAL SOUTH DAKOTA. *South Dakota State Planning Board. (Brookings, S. D.) Processed. January 16, 1938.*

The State planning board has prepared this report as a basis for approaching land-use problems in 27 counties of central South Dakota, an agricultural transition area between intensive farming areas to the east and the range country to the west. The report discusses land uses, livestock distribution, leasing arrangements, supplemental data, and supplies several maps and charts of the area.

√ MONTANA FARM BANKRUPTCIES. *R. R. Renne. Montana State College Bulletin 360. (Bozeman, Montana.) June 1938.*

Showing 3,900 Montana farmers have become bankrupt in the last 40 years—the largest number, in proportion to total farms, of any State in the Union—the author studies the relationship of bankruptcy figures to land-use practices and ownership status of farmers. Bankruptcies and farm failures, the author concludes, can be reduced by basing loans on the productive value of the land as determined by scientific soil surveys, computed on the basis of average yields and prices; by assessment of taxes in line with productive value of land, and by adjusting annual loan repayments to current income in terms of buying power rather than dollars.

√ NORWICH: AN INDUSTRIAL PART-TIME FARMING AREA. *Whetten and Field. Studies of Suburbanization in Connecticut. Bulletin 226. Connecticut State College. (Storrs, Connecticut.) May 1938.*

Second in a series of studies of suburbanization designed to describe migration into rural areas surrounding cities, this report indicates some of the social and economic adjustments which have resulted. Migrants to this area are shown as predominantly from unskilled and semiskilled groups, about half of whom engage in some farming. Economic reasons are revealed as responsible for much of the migration.

√ PHYSICAL AND ECONOMIC FACTORS RELATED TO LAND USE CLASSIFICATION IN SOUTHWEST CENTRAL SASKATCHEWAN. *Department of Farm Management, University of Saskatchewan, and Dominion Department of Agriculture. Publication 609. (Technical Bulletin 15) Ottawa, Canada. March 1938.*

A preliminary report on land-use problems of Saskatchewan in the light of the 6-year drought, this study is one of a series to determine a classification of farm lands in the drought sections, and forms a part of the rehabilitation program instituted in 1935. Included in the survey are seven rural municipalities in southwest central Saskatchewan, representative of a large portion of the drought area, where soil drifting and blowing has been a serious problem. Wheat production has long been established here and only in special areas are livestock enterprises of great importance. Almost 50 percent of farmers cooperating in the rehabilitation program, it is shown, received relief assistance for 6 consecutive years.

√ THE TREND OF REAL ESTATE TAXATION IN KANSAS, *1910–35. Harold Howe. Kansas State College Circular 192. (Manhattan, Kansas) October 1938.*

The trend of taxes on farm and city real estate in Kansas from 1910 to 1935, with analysis of the factors responsible for the trend, is interpreted in this study. During the period considered, farm real-estate taxes increased from $9,000,000 to $29,000,000. City real-estate taxes increased from $5,000,000 to $26,000,000. The rising tax rate, it was found, was attributable largely to roads and education. Speaking comparatively, however, the report shows that the cost of government administration which was borne by real-estate taxes increased but slightly during this period.

√ IRRIGATION—A SELECTED BIBLIOGRAPHY. *Dorothy W. Graf, Librarian. Bureau of Agricultural Engineering, U. S. D. A. (No. 6017.) 1938.*

Recent technological developments and a succession of drought years have made the Nation irrigation conscious. While not completely covering the field, this bibliography has been prepared with the hope that it will be useful in working out the complex irrigation problems which await solution in many areas. It includes references to books, periodicals, and publications of societies through 1937.

√ PROBLEMS OF THE PRAIRIE, CENTRAL, AND LAKE STATES REGION. *Marcus Schaaf. Forestry News Digest, pp. 4–5. (Charles Lathrop Pack Forestry Foundation, Washington, D. C.) January 1939.*

Presented here is a discussion of how lack of regard for a proper forestry program in development of these areas resulted in erosion of farm land, destruction of timber, loss of necessary windbreaks, and a host of acute personal and governmental problems. The economic and social welfare of a large portion of the population in this region is at stake, he says, in efforts being made for intelligent land use.

√ Farm Mortgage Foreclosures in Southern Iowa, *1915–36. W. G. Murray. Iowa A. & M. College Research Bulletin 246. (Ames, Iowa.) December 1938.*

Over a 22-year period, the author shows, 12,361 farm mortgages were foreclosed in the 31 counties of southern Iowa, with foreclosures occurring more frequently on the poorer, eroded land. Total judgments involved were $127,768,000, or an average of $68 an acre, the report indicates. Individuals foreclosed in 42 percent of the cases, insurance companies 27 percent, banks 15 percent, and the remaining 16 percent was accounted for by joint-stock land banks, the Federal Land Bank, loan companies, and miscellaneous lenders.

√ Range Conditions in the Uinta Basin, Utah. *Stoddart, Lister, Stewart, Phinney and Larson. Utah Agricultural College Bulletin 283. (Logan, Utah). October 1938.*

This study shows that the lower ranges of the Uinta Basin have been supporting livestock numbers far beyond their capacity, and advances the belief that in order to effect a balance between available range-forage resources and the stock-grazing demand in the Basin, a combination of adjustments is needed. Among the changes recommended are additional supplemental feeding, increased farm feeding, shifts in seasonal use of range, and other improvements in range management.

√ The Trend in Sale Prices of Farm Real Estate in Minnesota. *A. A. Dowell. Minnesota Agricultural Experiment Station Bulletin.*

Brought up to date by this bulletin is the information the Minnesota Experiment Station has been furnishing since 1910 on farm real-estate transactions. Factors appearing favorable for price improvement are given as current low-interest rates of farm mortgages, rate of return on farm land in some areas during recent years, increase in foreign demand for farm products since 1933, and tax reduction on owner-occupied farms. There is a preponderance of unfavorable factors, however, which tend to depress farm-land prices.

√ Economic Relationships of Public Lands and Privately Owned Grazing Lands in the Western States. *M. H. Saunderson. Journal of Farm Economics. XX (4) 841. November 1938.*

The use of large areas of public land in the 11 Western States in a complementary relationship with privately owned land for livestock production has been the basis for raising many land-policy questions. Development of the background of certain problems and questions, and indication of the meaning of alternative courses of public land administration is the undertaking of the author.

√ Forfeiture of Rural Property Rights Through Tax Delinquency. *H. K. Allen. Journal of Land and Public Utility Economics. XIV (4) 382. (337 E. Chicago Avenue, Chicago, Ill.) November 1938.*

Since the payment of taxes is one of the important limitations on property ownership, every effort, according to Mr. Allen, must be made to distribute the tax burden equitably and to administer governmental service efficiently. Discussing the means of enforcing tax liens on property, this publication advances a number of practices as being desirable for use by local and State units, including provision for classification of tax-reverted land according to appropriate use, with conversion of such land to the purpose for which it is best adapted.

√ State Aids in Connecticut. *Arthur W. Dewey. Bureau of Agricultural Economics, U. S. D. A. Storrs, Connecticut. (26 pp., processed.) November 1938.*

Figures on tax delinquency in Connecticut as one basis for examining State-aid policies, and as a useful source of information for those concerned with Connecticut's socio-economic problems.

√ The Cost of State Government, 1924–37. Studies in Taxation in Delaware. *M. M. Daugherty. Delaware Experiment Station Bulletin 211. (Newark, Del.) June 1938.*

The principal topics considered in this bulletin are receipts and expenditures of the State of Delaware, 1924–37. The study shows that current expenses have about doubled in the last 14 years, that ordinary State income has fluctuated greatly, that all functions of the Government have grown decidedly, and that sources of revenue, except during 1934 and 1935 when extraordinary receipts were large, have not varied materially.

√ Poor Whites in the South. *Mildred R. Mell. Social Forces 17 (2) 153–167. (University of North Carolina Press, Chapel Hill, N. C.) December 1938.*

Study of the southern people and regions, according to the author, is one of the "musts" in the program of research and planning for the next period of development in the Nation. "If the depressed groups as they appear in the South are regional manifestations of national phenomena, instead of sectional phenomena as were the poor whites, then the developing science of the region," she says, "offers both an effective tool for investigation and technique for planning next steps toward both a more abundant life for the southern regions and more adequate participation in that life for all classes."

√ Proceedings of the Western Farm Economics Association, Eleventh Annual Meeting. *Bozeman, Mont. (Montana State College). July 6–8, 1938.*

A collection of the papers read at the eleventh annual meeting of the Western Farm Economics Association, this publication contains a number of papers on land economics, as well as on agricultural policy, farm management, and farm credit problems, and policies. Among the land economics papers were, Research Problems in the Utilization of Western Range Land, by M. H. Saunderson, with discussions by A. F. Vass and Clyde McKee, and Some Considerations Involved in an Appraisal of Measures for Land-Use Control, by J. H. Marshall, with discussions by J. J. Haggerty, of BAE, and Horace Bolster.

√ Stability of Farm Tenure Through Revision of Prevailing Rental Agreements. *Peter Nelson. Oklahoma Current Farm Economics. 11 (5) 111. (Stillwater, Okla.) Series 49. October 1938.*

If farm tenure is to be stabilized, Nelson says here, the Oklahoma farm operator must accept increased responsibility under an increasingly complex type of contract, or sacrifice independence of operation. Ability of farmers to test and make a fair lease and abide by its provisions, a change in methods of paying rent, and the extension of farm tenure, with adequate legal protection for landlord and tenant, he says, would tend toward stabilization.

LAND POLICY REVIEW

Contents FOR MARCH-APRIL 1939

		Page
Steel Mules	*C. Horace Hamilton*	1
Trade War in the States	*Frederick V. Waugh*	8
The Ubiquitous City	*M. M. Kelso*	12
Wanted: Population Adjustment, Too	*Carl C. Taylor and Conrad Taeuber*	20
Come Out of the Ivory Tower, Doctor	*O. V. Wells*	29
Farmer-Made Programs in a Texas County	*D. A. Adam*	34
Canada's Land of Little Rain	*G. H. Craig*	39
Books		45
Here and There		50
For Your Attention		52

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